RELATIONSHIP BETWEEN PERCEIVED PARENTAL AND TEACHER PSYCHOLOGICAL CONTROL AND LEARNED HELPLESSNESS AMONG FORM THREE STUDENTS IN MAKUENI COUNTY, KENYA

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DECLARATION

I confirm that this research thesis is my original work and has not been presented to any other university/institution for consideration. This thesis has been complemented by referenced sources duly acknowledged. Where text, data, graphics, pictures, or tables have been borrowed from other sources, including the internet, these are specifically accredited and references cited in accordance with anti-plagiarism regulations.

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DEDICATION

This thesis is dedicated to the memory of my mother, Theresiah Nzioki whose influence and encouragement greatly shaped this thesis.

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ABBREVIATIONS

AMOS	Analysis of Moment Structures
COVID	Corona-Virus Disease
IToIS	Implicit Theories of Intelligence Scale
KCPE	Kenya Certificate of Primary Education
KCSE	Kenya Certificate of Secondary Education
KNEC	Kenya National Examinations Council
LH	Learned helplessness
LHS	Learned Helplessness Scale
NACOSTI	National Council for Science, Technology and Innovations
PCS-YSR	Psychological control scale - youth self-report
PCT-SR	Psychological controlling teaching - student report.
SPSS	Statistical Package for Social Sciences

ABSTRACT

Low motivation and passivity towards learning tasks resulting from perceptions of uncontrollability of outcomes is a persistent problem, especially among low-achieving students. Literature has attributed this to the development of learned helplessness among some students. Despite the adverse effects of learned helplessness in such aspects as decreased academic performance, self-destructive strategies, maladjusted behaviour, and depression, the construct remains largely uncharted among the secondary school population in Makueni County, Kenya. Additionally, findings on dispositional and contextual antecedents of learned helplessness remain equivocal. In view of the foregoing, in the first two objectives, the current inquiry proposed to establish the prediction of learned helplessness from perceived teacher and parental psychological control. Further, the study explored if mindsets mediated the relationship between perceived parental and teacher psychological control and learned helplessness. This study was informed by the Mindsets Theory (Dweck, 2017). and the Self-Determination Theory (Ryan & Deci, 2017). It was based on an exploratory correlational research design where the target population comprised 3890 (1988 girls) form three class of 2023 in all 48 secondary schools in Makueni Subcounty. To ensure random allocation a multi-stage sampling technique was used. The locale was purposively selected for the study. Stratified random sampling was applied in the selection of schools in different school types and students by gender. A core of 413 (212 girls) respondents (M_{Age} =16.82, SD = 1.08) was randomly selected from the participating schools to respond to the questionnaires. Before this, a pilot study was undertaken involving 48 students. Data were collected using an adapted Psychological Control Scale - Youth Self-Report Measure, Psychologically Controlling Teaching - Student Report, Implicit Theories of Intelligence Scale and the Learned Helplessness Scale. The Statistical Package for Social Sciences, SPSS, version 25 and SPSS AMOS, version 26, were used in the data analysis. Bivariate correlational analyses using the Pearson's Product Moment Correlation Coefficient revealed that both perceived maternal psychological control, r (381) = .11, P < .05, and paternal psychological control, r (381) = .15, P < .01, had significant correlations with learned helplessness. Moreover, perceived teacher psychological control has a significant correlation with learned helplessness, r (381) = .19, P < .001. Further, full structural equation modelling analyses on three separate models revealed that mindsets mediate the relationship between perceived parental and teacher psychological control and academic achievement. Specifically, mindsets fully mediate paternal control's relationship with learned helplessness, while partially mediating the relationship for both maternal and teacher control, suggesting other factors are also at play in these relationships. The findings affirm the relevance of psychological control in the prediction of learned helplessness among students. The study may be key to creating an autonomy-supportive learning environment as well as devising interventions for alleviating learned helplessness, which cumulatively translate into an overall better learning environment for learners.

CHAPTER ONE

INTRODUCTION AND BACKGROUND TO THE STUDY

1.1 Introduction

This foundation section contextualises the study. Specifically, it contains the study's background, problem statement, purpose, and objectives. Further discussions will entail research hypotheses, assumptions of the study, limitations, as well as delimitations of the study, and theoretical and conceptual framework. The operational definition of terms is presented last.

1.2 Background to the Study

World over, educational systems tend to adopt performance-oriented practices which, in nature, are competitive (Raufelder et al., 2018). Education evaluation and feedback practices are inclined toward norm referencing, which can be competitive nature of these practices can be deleterious, as they may amplify failure instances (Sakina, 2021). Whilst for some students, repeated failure experiences act as a stepping stone for future success, for others, it is interpreted as a negative evaluation of their competence (Buzzai et al., 2021). Objectively, such failure experiences may be controllable; individuals may perceive a lack of consonance between the outcome and the effort invested in an activity (Peterson & Seligman, 1983, as cited in Xie et al., 2021). Exposure to this perceived uncontrollability of outcome may lead one to feelings of helplessness.

Learned helplessness (LH) is a coping strategy to negative evaluations of a student's ability in which they perceive non-contingence of outcomes to tasks as a result of repeated failure experiences (Filippello et al., 2018; He, 2021). It is a maladaptive

attributional, emotional and behavioural pattern in which learners exhibit passivity and low motivation in response to academic tasks. Students with LH show low persistence and resilience in challenging academic tasks. Learners abstain from effort in a task under the conviction that whichever effort they apply to a given situation does not result in any change (Sorrenti et al., 2018). These learners base their lack of commitment on imminent failure resulting from internal, uncontrollable factors. This resultantly leads to depressive symptoms and anxiety.

Behavioural manifestations of learned helplessness are in the form of decreased motivation, a lack of initiative and the avoidance of uncontrollable events (Liu et al., 2024). Helpless behaviour progressively creates deficits in the learner that impair their desire to learn. These impairments are threefold: cognitive, motivational and affective (Sharma, 2021). Motivational deficits interfere with the learner's initiation drive, and cognitive deficits impair a learner's capacity to learn by adopting negative self-protective strategies such as procrastination. Affective deficits are exhibited in the form of low self-esteem, depression, and anxiety. Previous studies (Gordon & Gordon, 2006; Raufelder et al., 2018; Xie et al., 2021) have shown learned helplessness to have adverse outcomes in academic setups. More specifically, learned helplessness has been attributed to negative self-protective strategies, avoidance, truancy, negative attitudes towards academic tasks, depression, low self-esteem, delinquency, and poor social skills. Buzzai (2021) adds that LH not only affect the individual learner but also entire classrooms through disruptive classroom behaviours.

In existing works of research, learned helplessness has emerged as a global concern. Studies on LH in scholarly contexts have mainly been done in Europe, America,

Australia, the Middle East and Asia (Ghasemi, 2022; Kolber, 2020; Sorrenti et al., 2019; Wu & Tu, 2019). Three separate studies conducted among public high school students in Iran found that at least one in three students exhibited learned helplessness in an English-as-second-language course, with levels going as high as 41.27% (Ghasemi, 2021, 2022; Ghasemi & Karimi, 2021). Teacher-led motivational interventions were established to have lasting effects in alleviating feelings of helplessness in these studies. In Germany, Ziegler et al. (2021) found that low academic ability and inadequate digital learning resources and skills accounted for increased levels of learned helplessness in online classes during the COVID lockdown. Reflection on helpless experiences and retraining of habitual attributions to failure experiences were suggested as possible intervention measures.

In Poland, a survey by Kolber (2020) found that 52% of young adults didn't believe in their abilities to execute academic tasks, while 36% had no ambition, and 15% were indifferent to learning and would not take any remedial actions. LH has also been found to be an issue of concern in vocational institutions. As Wu and Tu (2019) concede, heightened levels of learned helplessness in higher vocational institutions in China impeded the realisation of the socioeconomic impact expected of these institutions. In a survey among Russian students by Ignatova et al. (2018), it was found that 76.6% of the students adopted a helpless attributional style towards failure in their studies. Only 23% of the students had an optimistic explanatory style.

In Africa, specifically, in River State, Nigeria, Nwanze et al. (2019) acknowledge LH as a salient concern in most educational institutions. Further, the study established that poor performance and avoidance of challenging tasks could be accounted for by learned

helplessness. In an earlier inquiry in Nigeria, Ekechukwu (2015) established that the increase in apathetic and withdrawn students in secondary schools was predictive of learned helplessness. It was found that 18% of the sample felt hopeless about their future. Additionally, the students resorted to such self-defeating strategies as procrastination. In Lesotho, Southern Africa, decrements in achievement and negative attitudes towards mathematics were linked to LH, with 30.3% of the sample exhibiting high levels of helplessness (Nenty et al., 2017). These students were found to be more inclined to cheat in exams in an effort to protect their self-worth.

In Kenya, little attention has been focused on LH. However, Ogoma (2019) established a positive link between autocratic parenting and LH in mathematics among secondary school students. The investigation, conducted in Kisumu and Siaya counties, showed that 83% of the respondents exhibited medium to high helplessness in mathematics. Reactions to failure are closely linked to patterns of attributions that learners adopt. It is observed in Ngunu (2018) that, congruent to LH attributional style, a substantive majority of students were inclined to blame failure experiences on internal and stable causes. These behavioural symptoms point to a likely prevalence of LH in Kenyan schools.

Makueni County is predominantly rural and is characterised by occasional famines and high poverty levels, with over 60% of the population living below the poverty line. Fritshe (2017) posits that instances of hardships that are seen as a threat to personal autonomy induce learned helplessness. It is therefore expected that these hardships, coupled with the competitiveness of the education system, may result in higher learned helplessness among students. The Kenya Certificate of Secondary Education (KCSE)

pass rates in the county point towards the wastage of otherwise potentially competent learners. The proportion of learners getting above the pass rate of a C-grade, the minimum diploma program entry grade recognised by the university placement body, has been stagnant, especially in Makueni Sub-County.

Decreased performance despite proven ability in the past has been argued to be predictive of learned helplessness (Buzzai et al., 2021). In Makueni, despite high entry marks, the output reflected in the KCSE remains disappointing. In 2019, the pass rates were at 29.7%, which dwindled to 26.1% in 2020, which followed a rise to 30.4 in 2021 before a drop to 28.4%. Peculiar to the subcounty, the number of students getting the E grade has been on the rise, despite the high entry performance in form one. According to the Makueni County Education Office (2023), the E grade has, on average, been between 7.3% and 11.8% from 2019 to 2022 against a national average of between 3.5% and 5.6% over the same period.

Moreover, parental styles tend to vary along the rural-urban dichotomy, with rural parents adopting more authoritarian tendencies and high expectations for their children. Li et al. (2021) argue that rural parents hold higher expectations for achievement for their children and may therefore adopt more controlling tendencies. This is reflected in Ogoma (2019), where students from rural households perceived higher authoritarian parenting than those from urban settings. Thus, exploring the patterns of learned helplessness and parenting within a predominantly rural context is important.

Developmental changes in adolescents come with a great desire for autonomy. Teachers and parents are influential in the academic attainment of adolescents, and as such, their activities can amplify or buffer this quest for independence (Deci et al., 1994; Romm, 2020; Soenens & Vanskiteenkse, 2010). One of these impediments is psychological

control. Oftentimes, teachers and parents impose standards and expectations on students, and to ensure that they are met, some may adopt psychologically controlling strategies towards the student (Filippello et al., 2017). When such social influences become controlling of a child's behaviour, it can undermine the autonomy of behaviour, thought and feelings. In this case, children may perceive a lack of chance and feel dictated by the individual.

Particularly, parental psychological control is a maladaptive parental pattern in an attempt to shape and regulate a child's mannerisms, study habits and peer relations. It is characterised by general manipulation of the child by intrusion into their private emotional and psychological lives (Barber et al., 2012; Filippello et al., 2018; Raftery et al., 2012). In detail, parents tend to manipulate thoughts, feelings and attachments in such ways as shame, inducing guilt, conditional regard, use of overprotective tendencies or withdrawing love (Fang et al., 2022; Gao et al., 2021). To ensure that the adolescent complies with the parents' expectations, they induce guilt and anxiety in the child and/ or withdraw affection (Scharf & Goldner, 2018). These parents emphasise failures while giving little credit to performance or the learning process. Filippello et al. (2015) point out that these impositions on the child lead to increased feelings of insecurity, frustration and helplessness. These measures consequently interfere with the child's psychological functioning, expression of thought, and sense of autonomy.

Investigation into controlling parenting, which has been majorly confined to Europe, the United States and East Asia, has consistently been theorised to be predictive of negative scholarly and social outcomes. More concretely, learned helplessness, substance abuse, low self-esteem, and risky online behaviours, along with over- and under-eating behaviours, have been linked to controlling parenting (Basili et al., 2021; Filippello et

al., 2017; 2018; Schleider et al., 2014). Although relatively understudied, the comparison of psychological control between maternal and paternal parenting dyads shows variations in the primary figure exerting control (Basili et al., 2021; Romano et al., 2012; Yan et al., 2020). Perceived maternal control has been established to be more predictive of negative outcomes in adolescents than paternal control. A line of literature (Lu et al., 2017; Martin-Piñón et al., 2023; McCurdy et al., 2023) has focused on the maternal aspect of psychological control, pointing to the primacy of maternal parenting practices on adolescents' psychological adjustment. Güngör and Bornstein (2010) posit that maternal psychological control may be particularly prevalent and consequential in children and adolescents since mothers often serve as primary caregivers and have more regular and close interactions with their children.

A review of studies shows that in Eastern cultures, paternal control was more pronounced as compared to Western cultures, where maternal control was more prevalent (Yan et al., 2020). Cultural differences in the severity of outcomes are reported based on the adolescents' view of the reasons for imposing control. Adolescents from individualistic cultures were found to exhibit more problematic behaviours, resulting from the frustration of the need for autonomy. In conservative cultures such as those of Eastern Asia and Africa, parental control is mostly viewed as a well-intentioned normative parental practice intended to keep them safe. These adolescents had fewer negative outcomes as a consequence of the practices compared to those from Western cultures (Ahinkorah et al., 2019; Barber et al., 2012; Yan et al., 2020). In Kenya, a study on familial functioning and LH by Ogoma (2019) equally showed parenting to be predictive of LH.

Similar to parental psychological control, controlling teachers are characterised by an inclination to intrude into the psychological space of the learner through pressuring and insidious techniques. Psychologically controlled classrooms can be identified by limited democracy, disregard for individuality and the use of pressure, coercion and control (Filippello et al., 2019). Moreover, teachers may openly disapprove of a student's contribution, explicitly display disappointment when students fall below their expectations or attack personal aspects.

The manipulative nature of psychological control diminishes self-regulation skills in the learners. By hindering the cultivation of self-regulation skills, psychological control could make children more dependent on external contingencies and less able to cope with academic setbacks independently (Soenens & Vansteenkiste, 2012). As elucidated in Zimmerman (2008), these learners are characterised by fear of failure, poor cognitive processing, and inadequate time management skills. These deficits subsequently increase feelings of helplessness. Soenens et al. (2012) suggest that controlling teaching is a reasonable reaction to pressures and demands emanating from administration, parents, students, or the teacher's personality. For instance, pressure and frustrations to meet specified targets may impel teachers to observe the undemocratic controlling tendencies.

Whilst there is a knowledge gap on controlling teaching in Africa, inquiries into the relations between controlling teaching and LH conducted in Italy (Filippello et al. 2017, 2018, 2020), Germany (Raufelder, 2018; Raufelder & Kulakow, 2022) and Iran (Ghasemi, 2021) have yielded rather conflicting findings. Most of the studies show teacher control as a positive predictor of LH Deviations from this were explained by

the premise that students who are dependent on teacher approval were less likely to be independent and were fueled by fear of failure (Raufelder et al., 2018). Teachers are comparatively key socialisation agents for adolescents. Teacher control has been found to have a more central role in aggravating helpless perceptions in adolescents when compared with parental control (Filippello et al., 2017; Yan et al., 2020). In Ghana, Awoniyi (2021) established that these harsh instructional practices led to amotivation, increased feelings of insecurity and fear of failure among students.

Perceived competence is central in LH literature and has been widely studied in scholarly achievement contexts. Under the implicit theories of intelligence framework, Kapasi and Pei (2019) observe that individuals conceive competence as either fixed (stable/ static mindsets) or subject to change (modifiable/malleable/ incremental mindsets). Mindsets have been established to influence numerous facets of learning, including resilience, motivation, well-being, achievement, and self-regulation. In line with literature from America (Smiley et al., 2016), Ghana (Gorleku et al., 2018) and Kenya (Mutua et al., 2018; Ng'ang'a, 2019), students with a malleable view of intelligence experience positive affect when engaged in academic tasks, set achievable academic goals, achieve better achievement and are resilient in the face of challenges. Conversely, learners who perceive intelligence as fixed tend to devote less effort after failure experiences and, as such, are comparatively more predisposed to helpless feelings when faced with challenging situations.

Autonomy-thwarting tendencies have been theoretically and empirically linked to the development of a helpless motivational orientation in students (Ghasemi, 2021; Raufelder et al., 2021). Additionally, an ever-increasing body of literature has

demonstrated that controlling tendencies shape the mindsets children hold. For instance, Schiffrin et al. (2019) point out that controlling practices from figures in authority, especially on emerging adults, undermine the individual's view of competence and may therefore predispose them to hold fixed mindsets. The critical undertone communicated by psychological control conveys that a child is ineffective in meeting their parents'/ teachers' expectations. Consequently, learners develop a sense of insecurity around their perceived ability as inadequate and unchanging (Soenens & Vansteenkiste, 2010).

Furthermore, Ziegler et al. (2021) argue that the fixed view of intelligence is a 'risk factor' for feelings of uncontrollability in the face of challenges. On this basis, therefore, adolescents' beliefs of intelligence were hypothesised to mediate the relationship between controlling teaching and parenting and learned helplessness, such that adolescents who hold fixed beliefs are highly predisposed to experience helpless cognitions resulting from controlling teachers and parents. This is consistent with the literature, where it was found that students with low self-belief in their ability, even under optimal peer, parental and teacher support, showed consistently high levels of LH (Wu &Tu, 2018). Although this research highlights mindsets as a possible intervention factor in the link between psychological control and learned helplessness, it is essential to consider this within the context of ongoing debates regarding the efficacy of mindset interventions (*see* Sisk et al., 2018). Overall, when tailored to specific learners' needs, mindset interventions are promising tools to enhance education (Burnette et al., 2023; Combette et al., 2023; Donohoe et al., 2022; Yeager et al., 2016).

From the foregoing, most studies were carried out in a different context and offer mixed findings on the relationships among the variables. In Kenya, despite the existence of adequate indicators of LH, the problem remains largely under-researched. This study serves as a first attempt to explore the aforementioned relationships. By mapping out the mechanisms in which the variables are related, the study provides an important foundation for future research and contributes to the localised understanding of the psychological dynamics affecting adolescent learners in Makueni County. Therefore, the study sought to establish if students' perceptions of psychological control correlate with LH and if mindset has a robust explanatory path for the relationship.

1.3 Statement of the Problem

Learned helplessness creates deficits in learners, impairing their desire to learn. It has also been linked to self-destructive strategies, depression, negative attitudes towards learning and poor social skills. Whilst research in the Western and Eastern world on the same has a bearing on the policy of education and informs relevant stakeholders such as teachers and parents on how to diagnose and remediate learned helplessness including the infusion of interventions such as attributional retraining and the adoption of motivational strategies, the absence of findings in Makueni County is a gap that warrants further research on the construct.

As evidenced in the KCSE results, on average, nearly 75% of learners of learners fail to attain the pass grade of C- and above. This is despite having high entry marks at the start of secondary education, which has, across the literature, been associated with the development of learned helplessness. If this continues, there is likely to be continued mass wastage of potentially able learners despite the government's dedication and heavy investment towards education. Moreover, learned helplessness creates a vicious cycle as it not only retards

learning but also can be transferred to other aspects of life. Helpless individuals tend to have low expectations and avoid challenging tasks, rendering them unproductive adults.

The majority of the literature on the relationships between parenting and learned helplessness among children is mainly among Western and Eastern Asian populations. The relationship among parenting behaviours and learned helplessness and the mediation of mindsets remains largely underexplored in the Kenyan population, more specifically in Makueni. The differentiated cultural and contextual characteristics of the populations mean that the findings cannot be applied to secondary students in Kenya. Additionally, the absence of conclusive findings on the same in the local context leaves the links between psychological control, mindsets and learned helplessness open to speculation.

1.4 Purpose of the Study

This inquiry purposed on examining whether perceived parental and teacher psychological control is predictive of learned helplessness. Moreover, the inquiry explored the mediation of mindsets in the relationships.

1.5 Research Objectives

Four objectives guided this study. To:

i. Establish the correlation between perceived parental psychological control and learned helplessness among form three students in Makueni County, Kenya.
ii. Find out the relationship between perceived teacher psychological control and learned helplessness among form three students in Makueni County, Kenya.
iii. Explore the mediation role of mindsets in the relationship between perceived parental psychological control and learned helplessness among form three students in Makueni County, Kenya.

iv. Explore the mediation role of mindsets in the relationship between perceived teacher psychological control and learned helplessness among form three students in Makueni County, Kenya.

1.6 Research Hypotheses

Four alternative hypotheses guided the study:

H_{a1}: There is a significant correlation between perceived parental psychological control and learned helplessness among form three students in Makueni County, Kenya.

H_{a2}: There is a significant relationship between perceived teacher psychological control and learned helplessness among form three students in Makueni County, Kenya.

H_{a3}: Mindsets have a significant mediation role in the relationship between perceived parental psychological control and learned helplessness among form three students in Makueni County, Kenya.

H_{a4}: Mindsets have a significant mediation role in the relationship between perceived teacher psychological control and learned helplessness among form three students in Makueni County, Kenya.

1.7 Assumptions of the Study

The students' self-reports were assumed to be an honest and genuine reflection of actual behaviour. The adolescents were expected to be conscious of their perceptions of controlling teaching, parenting, mindsets, and the level of learned helplessness and thus, the obtained data were accurate self-assessments. Further, students were assumed to vary in their perceptions of psychologically controlling parents and teachers and

levels of LH in academic tasks. Moreover, schools were assumed to adopt competitive practices that may occasionally be frustrating to learners, prompting them to view outcomes as non-contingent. The variables under study were, additionally, assumed to be relatively stable and thus did not vary during the investigation. Lastly, the model of the relationships among the variables was assumed to be valid in the direction proposed by the theory.

1.8 Limitations and Delimitations of the Study

1.8.1 Limitations of the Study

Findings from this inquiry must be viewed within the context of its limitations. The lack of temporal order rendered by the cross-sectional nature of data collection and the correlational design preclude the drawing of causal conclusions and the determination of potential reciprocal relationships. However, interpersonal environments have been documented across the literature to exert a notable influence on adolescents' cognitive and motivational functioning, which would be foundational to assessing the relationship. Further, the variables under study were not observed directly. Rather, the study employed self-report measures. However, acknowledging the distinct cognitive and self-awareness developments along with perceptual shifts in psychological control with age, it is important to consider the input of adolescents. Additionally, it is difficult to declare with certainty that the responses to the questionnaires are fully reflective of actual behaviour. Owing to the sensitive nature of the perceptions of ability and helplessness, there were concerns over the inevitable underreporting and social desirability bias. As a mitigation, the participants were adequately briefed on the anonymity, confidentiality of their output and the purely educational intent of the study

to reduce this inadvertent subjectivity. Additionally, to minimise respondent misconduct and ensure data quality, an attention check was instituted (*see item six on the maternal psychological control scale*).

1.8.2 Delimitations of the Study

Despite there being other variables related to LH, the investigation was restricted to the study of the selected contextual and individual correlates of learned helplessness: perceived parental and teacher psychological control, and mindsets. The variables were selected due to their interrelatedness in reinforcing one's view of competence, which is key in shaping reactions to challenges and failures. Moreover, regarding the respondents, only form three students from Makueni Sub-County, Kenya, were targeted by the study. Based on the reviewed LH literature, form three students were more likely to have helpless cognition given their comparatively extensive experience with challenging tasks than lower forms. There could be a difference in the expression of the problem under study in different educational and cultural settings. Therefore, the applicability of the results to different populations may be limited.

1.9 Significance of the Study

Findings from this inquiry on the relationships among psychological control, mindsets and learned helplessness are envisaged to have key implications for action. Since learned helplessness is amenable (Ghasemi, 2021), it is hoped that findings may be of salience in changing students' study habits, engagement and approach to failures and challenging situations. This is through changing learning, cognitive and motivational strategies employed by students. They may, by extension, optimise academic achievement and exploit their potential. Teachers may benefit from this study by

adopting better teaching styles that nurture autonomy and create an environment that ensures that students continually learn from their failures and mistakes. They may also acquire insights on strategies to diagnose and deal with learned helplessness, such as infusion of motivational and mindset interventions and retraining students' habitual attributions. Parents may also be informed about adopting parental tendencies that nurture individuality. The Ministry of Education (MoE) may also be informed to adopt policies that cater to the whole continuum of learners' differences, especially the most vulnerable to learned helplessness, by strengthening student support and motivation. Findings may also add to the literature on psychological control and LH. The available studies on the relationships between teacher and parental psychological control and learned helplessness have either been conducted in different cultural contexts or offer inconsistent findings. The study may give insights into the relationships in Kenyan educational norms.

1.10 Theoretical and Conceptual Framework

1.10.1 Theoretical Framework

The exploration into the relationships among the variables was informed by the Self-determination theory and the mindsets theory.

1.10.1.1 Self-Determination Theory (Ryan & Deci, 2017). The self-determination theory explains how people develop motivation within social environments. The theory states that for optimal human performance, three psychological needs ought to be attained – autonomy, relatedness and competence. The prosperity, motivation, engagement, and success of learners are impacted by how educators satisfy their basic needs. The concept of autonomy or self-determination is

the focus of the study since psychological control (the opposite of autonomy support) undermines the need for autonomy. It refers to the innate need for growth and integration in the form of the pursuit of solutions to problems and curiosity (Ryan & Deci, 2017) and involves a sense of willingness when undertaking a task.

As pointed out by Soenens and Vansteenkiste (2010), behaviour is either self-regulated or control-regulated. Self-regulated behaviour results from intrinsic motivation and is internalised. Conversely, control-regulated behaviour is achieved by the use of pressure, coercion and obligation. It is controlled by motives, for instance, internal or external pressures, reward and punishment contingencies, deadlines, and other people's expectations. Controlled behaviour negatively impacts psychosocial adjustments and may lead to behavioural maladjustments.

Socialisation agents such as parents and teachers are viewed as important determinants of behavioural regulation. Intrinsic motivation is nurtured by autonomy-supportive agents that encourage adolescents to take initiative and respect their psychological freedoms. The theory states that learners' internal motivational resources are more intuitively engaged when teachers support their basic mental needs for independence, potential, and relatedness. Conversely, controlling teachers and parenting thwart the potential for autonomy as it restricts an individual to think and behave in determined ways (Shaft & Goldner, 2018). High expectations and negative feedback occasioned by psychological control leave a persistent imprint on the students' perceptions of success and failure. These pressures the individuals to feel that the outcomes of events are non-contingent. Psychological control upsets internal regulatory mechanisms, exposing the adolescent to maladjustments.

Within the study's context, the focus is directed on how psychological control from external agents, teachers and parents could undermine a student's sense of individuality and perceptions of ability, consequently leading to learned-helpless behaviour. Codina et al. (2018) noted that controlling teachers led to suppression of the need for autonomy and competence, which led to students' negative outcomes in the face of frustration. Findings among Italian students affirm that harsh interpersonal control from teachers and parents led to the frustration of students' psychological needs. Children from controlling settings exhibited comparatively higher feelings of anxiety, insecurity and incompetence, which triggered learned helpless behaviour (Filippello et al., 2018).

Thus, the Self-determination framework is central to understanding how psychologically controlling tendencies among teachers and parents can undermine the need for individuality, relatedness and competence among students and lead to feelings of helplessness. Therefore, the theory informs about the role of parents and teachers in alleviating or promoting LH.

1.10.1.2 Mindsets Theory (Dweck, 2017). The theory is rooted in an individual's fundamental belief of their intelligence and competence as either innate and unalterable or malleable (Dweck, 2017). It is based on the principle of neuroplasticity, which refers to the brain's capacity to adapt and develop in response to the circumstances that an individual encounters. It is a semantic framework which acts as a lens through which an individual views their competencies and shapes their experiences with success and failure. Some learners view academic assessment and achievement as an evaluation of their competence, while for others, as an opportunity

to deepen their understanding (Kapasi & Pei, 2022). Students tend to view intelligence as either fixed or malleable.

The fixed mindsets theorists tend to view intelligence as unchanging. They are more likely to exhibit behaviours that hinder their growth in their socioemotional and academic well-being. They view failure as a lack of ability. For the fixed-mindset students, post-failure is characterised by negative attitudes, helplessness, adoption of self-handicapping strategies and procrastination. Conversely, the malleable group believe that ability can be improved. The belief that competence is subject to change leads individuals to attribute failure to a lack of effort/ persistence. They are likely to adopt more mastery-oriented strategies and are actively engaged in their work (Munanu et al., 2022). Further, mindsets are central to learning and, more specifically, hold a great influence on students' resilience, reactions to failure and expectations.

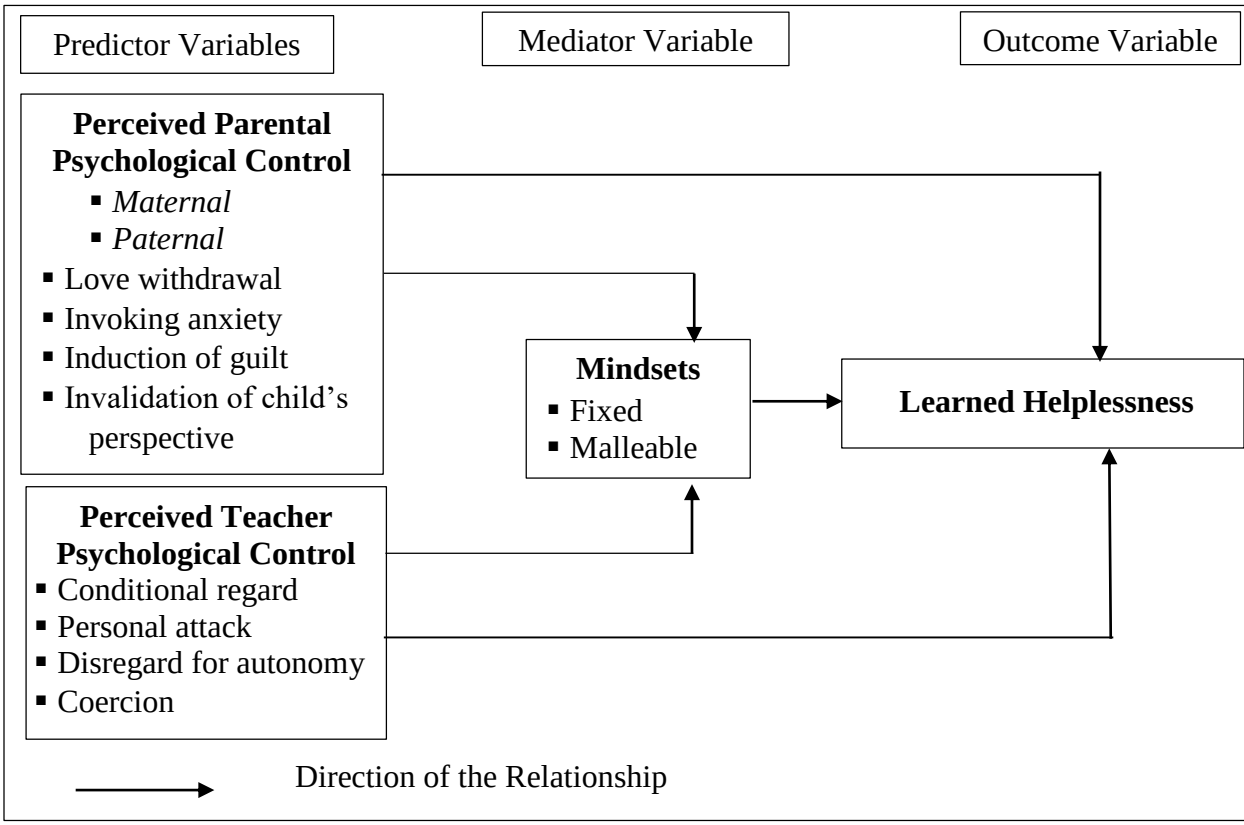
The investigation was centred on the role of fixed and malleable mindsets in fostering and alleviating feelings of uncontrollability of academic outcomes among learners. Compared to their malleable mindset counterparts, Zarrinabadi et al. (2021) found that those with malleable mindsets are more inclined to display powerless response behaviours due to their propensity to view challenges as impossible tasks, which they interpret as signs of low competence. Students with fixed mindsets were more likely to avoid challenges to protect their self-worth. This is also explicitly demonstrated in a study by Ziegler et al. (2021) where students with malleable beliefs believed that deficits in their learning were amenable to change and, resultantly, had better academic outcomes.

Controlling teaching and parenting has been viewed to undermine perceptions of control and competence among learners and, as such, may reinforce beliefs of intelligence as unchanging. Despite the fact that mindsets are conceptualised as a trait, malleable mindsets can be nurtured in the learning environment, and teachers, peers and parents are extremely important in influencing students' mindsets (Haimovitz & Dweck, 2017). Learners may acquire beliefs of non-contingency of outcomes, which in turn results in LH. While the self-determination theory explains the influence of external agents towards one's psychological functioning, the mindsets theory offers the complementary perspective of the individual as an active participant in their lives, through their beliefs. The mindsets theory presents a strong explanation of the possible mediation of implicit theories of stability and modifiability in determining the extent of LH in students.

1.10.2 Conceptual Framework

Figure 1.1

Hypothesised Model of Relationships.



Source: Researcher Conceptualisation, 2023.

From Figure 1.1, predictor variables are comprised of perceived teacher and parental psychological control, whilst LH is the outcome variable. Perceived parental psychological control is studied separately under the maternal and paternal dyads. Perceived parental and teacher psychological control are hypothesised to predict LH. Mindsets are considered a mediating variable. It was hypothesised that students' mindsets may explain the relationships between both perceived teacher and parental control and LH.

1.11 Operational Definition of Terms

Fixed mindsets. It is the composite score ranging from eight to 24 on the implicit theories of intelligence scale (IToIS) on the student's perception of their academic ability as innate and therefore unchangeable.

Learned helplessness. It is the summated students' score on the Learned Helplessness Scale (LHS) concerning the students' view of the degree of uncontrollability of events in the students' academic lives and their self-belief in the ability to effect change.

Malleable mindsets. Refers to the summated score on the IToIS on the view of the individual's ability as subject to change through effort and persistence.

Mindsets. A student's belief in the nature of their ability in academic tasks. This is either incremental or fixed**.**

Perceived maternal psychological control. Refers to the total score on the Psychological Control Scale - Youth Self-Report (PCS-YSR) concerning feelings on maternal intrusion and manipulation.

Perceived parental psychological control. Denotes the degree to which learners perceive parental manipulation of their behaviour, thoughts, feelings, and social connections.

Perceived paternal psychological control. It is the summated score on the PCS-YSR scale on an adolescent's view of their father as intrusive in their psychological and emotional world.

Perceived teacher psychological control. It is the score on the Psychologically Controlling Teaching - Self-Report (PCT-SR) concerning the degree of feelings of intrusion into the learner's psychological world by the teacher.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

This section is an exposition of the reviewed studies with respect to the study objectives. Literature on parental and teacher control and their relationship to helplessness is explored, as well as the mediation of mindsets in the relationships. Thereafter is a summary and exploration of gaps.

2.2 Relationship Between Perceived Parental Psychological Control and Learned Helplessness

There is abundant empirical evidence linking controlling parenting to an array of negative outcomes, including LH. Controlling practices have almost entirely been predictive of learned helplessness across contexts. However, variations in the dominant figure of exerting control and the severity of outcomes have varied across cultures (Pinquart, 2017). This subsection explores the dynamics in the relationships between views of controlling parenting and LH across the literature.

The relationship between parental psychological control and a multiplicity of problem behaviours has yielded rather equivocal findings. Psychological control has consistently been linked to both internalising behaviours (such as depression, disinterest, helplessness, and anxiety) and externalising behaviours (including substance abuse, aggression, and tendencies towards breaking the law). A meta-analysis by Yan et al. (2020) illuminates psychological control, its moderators, and its link with problem behaviours. The meta-analysis sampled 137 studies across both

Eastern and Western cultures and different age groups. There were variations in the strengths of the relationships across cultures and between children and adolescents. Age affects the strength of the relationship between controlling parenting and internalising behaviours, with adolescents showing greater relationships. Culture was a significant moderator; youths in Eastern cultures had fewer problematic behaviours associated with psychological control. In Eastern cultures, psychological control was more likely to be deemed as acts of care or exercise of authority over the child's development (Romm et al., 2020). Considering the influence of the distinct qualities of specific cultures in the relationship, it was imperative to study the relationship among adolescents in Kenyan parenting norms.

In Sicily, Italy, Filippello et al. (2018) sought to establish whether controlling parenting was predictive of LH and mastery orientation. A total of 214 (128 female) high school students were randomly selected to fill out a self-report tool. Structural equation modelling indicated a significant positive correlation not only between maternal psychological control and LH but also between paternal psychological control and LH. Descriptive data showed maternal psychological control to be more prevalent compared to paternal. While the inquiry was carried out among high school students in general, the current one focused on only students in their third form. Taking into account that learned helplessness is a product of repeated failures, it is assumed that these students have undergone extensive learning activities and failures alike. To this end, the learners are comparatively more predisposed to LH-inducing situations.

Similar findings are reflected in an earlier inquiry among Italian secondary school students. In the investigation, a sample of 433 (62% female) respondents from 10

classes in a high school in Messina, Italy, were randomly selected by Filippello et al. (2017) to participate in a study. The self-report inquiry sought to establish the linkage between controlling parenting and LH, as well as the mediation of maladaptive perfectionism. The sample consisted of 88.1% of respondents from either middle or high socio-economic status. The respondents were administered a psychological control and LH measure. Structural equation modelling analyses revealed a significant positive relationship between perceived paternal psychological control and LH and a negative relationship between maternal control and LH. Maladaptive perfectionism was found to be a full mediator in the two relationships. Feelings of inadequacy and uncontrollability of learning outcomes were characteristic of students from psychologically controlling parents. The sample was restricted to one school, which may pose a limitation due to its homogeneity and, by extension, the potential for generalizability across contexts. To counter this, the study used data from different school strata.

Investigation into the links between controlling parenting and learned helplessness was not constrained to cross-sectional designs. Jang and Lee (2020) undertook an experimental inquiry among 201 (102 girls) Korean children with an average age of 77.5 months (*SD*=3.6) as well as their mothers. The children were exposed to unsolvable tasks and thereafter to solvable tasks. Correlational analyses established significant weak correlations among the two types of psychological control, autonomy control and affection control, and learned helplessness. Key to this was the observation of the origins of LH and psychological control as an antecedent. Whilst a weak relationship was found among children, studies (Pinquart, 2017; Yan et al., 2020) have

established significantly higher correlations among adolescent samples. Additionally, experimental conditions may limit generalisations beyond the study settings. The current study observed a correlational design and involved an adolescent sample.

Psychological control is closely related to the helicopter parenting dimension. Helicopter parenting is characterised by overly controlling and perfectionism-seeking tendencies. Similar to controlling parenting, parents set high expectations for their children and often give negative feedback. In a study on maternal helicopter parenting and helplessness, Hassan et al. (2020) identified a noteworthy correlation between LH and all subdimensions of helicopter parenting. The study, which involved 533 adolescents aged between 16 and 18, further established that maternal attitudes are a much stronger predictor of adolescent helplessness. Cross-cultural comparisons of psychological control and its outcomes have established that culture moderates the relationships. It was therefore important to carry out a study in cultural settings underrepresented in the literature on the construct, such as Kenya.

In Kenya, specifically Siaya and Kisumu counties, a study by Ogoma (2019) sought to investigate the prediction of LH in mathematics education by parental styles. The parental styles under study were autocratic and democratic to represent the extremes along the parenting continuum. A random selection of 185 (94 male) secondary school students to fill in a self-report measure was undertaken. Correlational analyses showed that students from democratic parenting setups were less likely to have LH. Conversely, students with autocratic parents, who are synonymous with psychologically controlling tendencies, were shown to have comparatively more LH. While this study offers a general preliminary view of parenting as an antecedent of LH in the Kenyan social and

curriculum context, the current inquiry proposes to specifically put more emphasis on the construct of psychologically controlling parenting.

2.3 Relationship Between Perceived Teacher Psychological Control and Learned Helplessness

As adolescents transition into early adulthood, teachers take a comparatively key socialisation role. To this end, psychological control from teachers can be severing as it may communicate a view of incompetence to the students. The literature reviewed in the subsection shows that teacher control has been consistently linked with helpless behaviour. However, mainly, methodological differences account for variations from this.

Filippello et al. (2017) conducted studies among 433 (63% female) secondary school students in Messina, Italy, to ascertain if both controlling teaching and parenting were associated with LH. The randomly sampled respondents, aged between 13 and 19 years, were administered a self-report tool on teacher and parental perceived psychological control as well as a learned helplessness scale. Correlation and structural equation modelling were used in analysing the data. From the data, it was evident that psychologically controlling teaching and parenting were both significantly and positively associated with helplessness. Also noteworthy is the fact that teacher control, as opposed to parental control, played a bigger part in eliciting LH. The study was, however, done in the context of Italian educational and sociocultural norms, which may vary significantly from those in Kenya. The applicability of the findings is therefore limited to the specified population; thus, there is a need to undertake a study on a different sample.

A study by Sorrenti et al. (2021) sought to determine whether controlling and autonomy-supportive teaching predicted LH and mastery orientation. A total of 395 respondents were selected from a secondary school in Messina City, Italy. Data were obtained from student records as well as self-report instruments administered to the students. Descriptive correlations and ANOVA were used in the analyses. It was evident that LH was predicted by controlling teaching, while Mastery orientation was predicted by autonomy support. It is also noteworthy that boys felt more psychological control from teachers as well as higher rates of LH. This study was conducted in Italy, which, unlike Kenya, is an individualistic society. The researchers recommended that such a study be done among a different sample to establish the soundness of the findings in different cultural milieus.

Literature on an antithetical construct, teacher autonomy support, has also generated support for the debilitating effect of autonomy-frustrating practices from teachers. In a review by Ma (2021), autonomy-supportive instructional practices were established to cultivate engagement and resilience among students. Learner-centred approaches such as considering students' perspectives, letting students be in control of their learning and encouraging independent work initiative and sustaining students' internal motivational resources. Autonomy support practices gratify the need for self-determination, which resultantly bolsters active involvement, resilience amidst challenges and mental exertion in learning tasks. This review highlights the focal role of teacher practices in promoting engaging and positive scholarly outcomes. However, there was still a need to examine the potential outcomes of the frustration of autonomy among learners.

Additionally, teacher autonomy support practices were established to be positively and significantly correlated with the mastery orientation. This is according to the investigation by Tan et al. (2023) that aimed to establish the serial mediation of the achievement goals framework and intellectual risk-taking behaviour in the relationship between teacher autonomy support and performance in science. The study was conducted among 520 (264 girls) fourth to sixth-graders in China. However, despite the prior strong relationship with the mastery approach, this investigation established a counterintuitive negative correlation between autonomy-supportive practices and academic performance. This is misaligned with theory and previous findings. There was therefore a need to undertake further research to clearly understand the connections between the constructs. This is especially given that the developmental characteristics of different age groups have been established to affect the reaction to autonomy frustration (Yan et al., 2020).

A different body of literature examined how autonomy-supportive motivational interventions affect the levels of helplessness among students. To determine the role played by teacher-led motivational interventions in limiting LH in middle school, Ghasemi and Karimi (2021) conducted an experimental study on 58 Iranian students. Participants were equally divided into control and experimental groups, where the latter was involved in a motivational intervention which involved initiating and sustaining motivation and self-evaluative strategies. Analysis of covariance indicated significant differences in levels of LH between the two groups after the six-month program. The findings underscored the centrality of the teacher in promoting an autonomy-supportive environment, which consequently leads to reduced LH. The researchers pointed out the

limited sample as a result of the design as a notable limitation of this study. Additionally, the sample consisted of only one gender. Based on this, the current investigation used a larger, randomly sampled and gender-inclusive sample.

Ghasemi (2021) undertook another experimental study on the effectiveness of teacher motivational strategies in alleviating learned helplessness among high school students in Iran. A core of 44 participants who exhibited high levels of learned helplessness was selected from a total of 126 after undertaking a LH questionnaire. Those in the experimental group were subjected to teacher-led motivational interventions which entailed encouraging autonomy and expression, goal setting and metacognition and positive feedback to bolster their self-confidence. Results from ANOVA emphasise the role of the teacher's motivational strategies, which, in contrast to psychological control, have an impact in attenuating learned helplessness. Since the study was longitudinal, the design's limitations may make it difficult to establish whether prior learning or maturity affected the findings. The results may have been affected by such factors as prior knowledge, thus limiting generalizability. Further, the findings cannot be generalised to dissimilar populations such as Kenya's due to differences in cultures. There was, therefore, a need to establish the link between teacher control and helplessness in the local context.

Majorly, most studies found that autonomy needs frustration to have adverse effects on learning and autonomy-supportive practices to have the opposite effect. However, this was not usually the case. In the state of Brandenburg, Germany, Raufelder et al. (2018) conducted a study among 845 randomly sampled 7^{th} to 10^{th} graders in 22 schools on the role teachers play as positive motivators in the relationship between test anxiety

and LH. Of the 22 schools, 17 were located in rural settings while the rest were in cities. Self-report instruments were used in the collection of data. Data analysis was in the form of bivariate analysis and latent moderated structural equation modelling. Interestingly, of the two aspects of test anxiety, worry and emotionality, only the latter significantly correlated with LH. Additionally, the results indicated that students tended to show more helpless behaviour when the teacher's positive motivation was highest. This was attributed to the fact that students who depend on teacher approval and motivation are less likely to be autonomous and are likely to be driven by fear of failure, and as such, may adopt a maladaptive attributional style towards failure. Accordingly, the connection between emotionality and LH was not moderated by the instructor's motivational support. This contrasts with Ghasemi and Karimi's study (2021), where teacher motivation interventions were shown to be strikingly successful in alleviating LH. This discrepancy implies the need for further studies on the relationship between controlling teaching as a predictor of depressive negative outcomes.

2.4 Mediation Role of Mindsets in the Relationship Between Perceived Parental and Teacher Psychological Control and Learned Helplessness

The mindsets that students hold have, across literature, been studied as a cause, outcome and even as mediators in relationships between a variety of learning outcomes.

In an inquiry among American online university students, Jin (2022) sought to investigate the serial mediation of the basic needs' satisfaction and learners' mindsets on the relationship between autonomy support and students' self-regulation. The study took a cross-sectional approach and sampled 1257 respondents to undertake self-report measures of the respective variables. The finding suggests a positive correlation

between autonomy support and the fulfilment of fundamental psychological needs. The fulfilment of basic psychological needs was, in turn, positively predictive of self-regulated learning. Moreover, mindsets exhibited a significant positive relation with self-regulated learning. Collectively, the proposed model explained 44.2% of the variability in self-regulation among the learners.

In a nationwide investigation conducted in Chile by Claro et al. (2016), mindsets were established to mediate the relationship between Students' socioeconomic status and their achievement. Learners from disadvantaged backgrounds who had a growth mindset achieved better academically because it significantly shielded them against the detrimental impact that poverty has on achievement. In essence, learners' mindsets may amplify the influence of a structural situation, affecting their learning outcomes.

In an additional inquiry by Mouratidis et al. (2017) on the relationship between autonomous-functioning, mindsets and self-regulation and autonomy functioning, conducted in Greece, mindsets were established to moderate the relationship between autonomy-functioning and efforts to study. Further, mindsets were found to affect students' subjective well-being, levels of procrastination, and depressive symptoms. Fixed mindsets were linked to poor performance, procrastination levels and low achievement levels.

Further, the mediation of different personal and contextual variables on the relationship between controlling parenting has been investigated across the literature. The mediators which have been investigated include maladaptive perfectionism, frustration intolerance, self-efficacy, and school refusal (Fillipelo et al., 2015; 2017; 2018; 2020). In these studies, self-efficacy, maladaptive perfectionism, and school refusal fully

mediated the relationship, whilst frustration intolerance was a partial mediator. This literature gives eminence to the individual as active in shaping their reactions to situations that are regarded as threatening to their perceptions of autonomy and competence. The studies relied on path analyses and full structural equation modelling in analyses, which are robust and powerful as compared to the traditional approach to mediation, Sobel testing.

Suggestions from the study informed the use of path analyses in the current study. These studies have, however, been mainly based on Italian samples, and whilst they focused on how the varied dispositional variables explained the relationships between psychological control and learned helplessness, it was therefore interesting to further this discourse by exploring whether the mindsets students hold mediated the relationship.

It is therefore important to understand the mechanisms by which the variables and the mediator relate across the body of literature. The literature on the links that form the direct effects between perceived teacher and parental psychological control and learned helplessness is reviewed in sections 2.2 and 2.3.

2.4.1 Relationship Between Perceived Parental Psychological Control and Mindsets

Controlling tendencies, especially in emerging adults, may frustrate autonomy of behaviour and communicate negatively on one's belief in their ability. Low perceptions of autonomy have been established to be predictive of depressive and problematic outcomes, including helplessness. While little is there about the mediation path, theoretical connections reviewed in the section allude to the possible mediation of mindsets.

In Hebei Province, China, Gao et al. (2020) sought to investigate the mediation of mindsets in the relationship between controlling parenting and scholarly achievement. A core of 4004 randomly selected fourth graders (M_{age} = 11years), alongside their parents, were selected from 36 schools to participate in an experimental study. Correlation analyses indicated that psychological control was indeed related to students' scholarly achievement. Fixed mindsets exhibited a positive correlation with both paternal and maternal psychological control. However, among the two, only paternal psychological control showed a notable interaction with fixed mindsets. In an effort to please the parents, students with fixed mindsets at the expense of their personal needs resulted in increased internalised distress and stunted academic performance. This study is key as it provides dynamics of controlling parenting in an equally conservative parenting setup as that of the current study. However, in a meta-analysis, Yan et al. (2020) established that father reporting of psychological control had significantly higher effect sizes than those of adolescents or mothers. Rather than parents self-reporting on psychological control, which may vary from perceived levels of the variables and may be prone to underreporting and social desirability, the current study used students' perceived levels of controlling parenting. Child self-reports on perceptions of psychological control are a more valid measure of the construct since feeling manipulated is more of a subjective experience (Barber, 1996).

In developing a concise measure of helicopter parenting, Schiffrin et al. (2019) investigated the link between parental and young adults' mindsets under the mediation of helicopter parenting. Helicopter parenting entails the intrusion of parents in the child's life, characterised by heightened levels of control. A sample of 275 respondents

was selected via snowballing to respond to an online self-report measure on helicopter parenting and ability beliefs. It was revealed that helicopter parenting was linked with both parents' and young adults' mindsets. Both paternal and maternal controlling parenting was found to be negatively linked to the child's incremental mindsets. The study, however, used snowball sampling, which may have limited the sample diversity, hence the lesser generalizability of the findings. The current study, however, used probability sampling techniques.

Sheffler and Cheung (2022) performed an experimental study to examine the effects of maternal incremental intelligence beliefs and view of their child's ability on their parental involvement among a sample of 121 Southwestern American learners, aged between 9 – 15, and their parents. This was on the premise that a child's ability and belief can be nurtured through positive parental involvement. Maternal reactions to a child's failure were observed and recorded as either supportive or controlling parenting. Correlational analyses revealed that the mother's growth mindset was positively related to supportive tendencies. Further, the study underscores the role of parental practices in nurturing positive, malleable mindsets in children. The design of the study, however, poses concerns over the ecological validity of the findings due to the laboratory setting of the study. Considering the above, a correlational design was implemented in the current investigation to further the findings' generalizability.

Ma et al. (2020) undertook an inquiry to determine the relationship between parental autonomy support and university students' mindsets. The survey employed a sample of 1030 undergraduate students from selected universities in China. Contrary to the research hypotheses, structural equation modelling analyses established that autonomy-

supportive parenting was not significantly predictive of malleable mindsets. Additionally, this study was conducted among university students, who may significantly differ from secondary school samples. Developmental changes among adolescents and self-identity development make adolescents' desire for autonomy comparatively greater. Thus, the current investigation aims to establish the relationships among adolescents, who may potentially offer varied results.

2.4.2 Relationship Between Perceived Teacher Psychological Control and Mindsets

While controlling teacher practices have been linked to adverse outcomes for adolescents, it is important to view the adolescent as an active participant in shaping their reactions to failure and challenges (Romm, 2020). Despite there being a burgeoning body of literature on the link between autonomy-supportive/ controlling teacher practices and students' LH, the role of mindsets in the relationship remains relatively understudied. Belief in abilities as malleable should act as a buffer between negative teacher practices and scholarly outcomes. The review below examines the link between psychological control and student mindsets.

In a recent study, Zarrinabadi et al. (2021) sought to establish the role of autonomy-supportive teacher practices on language mindsets and resultant perceptions of competence among a Persian sample of 392 freshmen and sophomores. A core of 392 students recruited through convenient sampling was expected to fill a self-report measure on perceptions of autonomy support, mindsets and communication ability during class time. Correlational analyses established that autonomy-supportive teaching was significantly and positively predictive of language mindsets as well as perceived ability in second language use. The study, however, used convenient

sampling to arrive at the respondents, which may not have been representative of the population. The current study employed a multi-stage blend of stratified and simple random sampling to increase generalizability.

A multi-informant sample of 2200 students aged 10 years old, 357 teachers and 58 school heads were involved in a quantitative survey to assess the teachers' beliefs, practices and students' mindsets in Helsinki, Finland (Yu et al., 2022). The study utilised stratified random sampling in the acquisition of the respondents. Results indicated that autonomy support in the form of guided enquiry pedagogy was found to be related to learners' mindsets. Despite the use of a multi-informant approach, the study gave forth unexpectedly inconsistent results on the other teacher practices. This, as the authors acknowledge, may be due to the utilisation of a one-item student mindsets measure, which had the potential of increased measurement error and reduced validity and reliability scores. The current study used established instruments with proven cross-cultural validity and reliability scores. The IToIS has been proven to be reliable on a similar Kenyan secondary school sample.

In a case study in a sample Finnish classroom, Rissanen et al. (2019) studied the implications of teacher instructional practice in nurturing a growth mindset. An elementary teacher responded to a mindset questionnaire, as well as observations during content delivery and thereafter an interview. It was established that subtle cues in pedagogy, such as the cultivation of resilience, constructive feedback and process-focused thinking, are elemental in shaping learners' perceptions of their abilities. However, the findings indicated that teachers tended to have an incremental view for low achievers and a fixed mindset for gifted learners. Whilst the study was conducted

among a sample of elementary school learners, the current one sampled form three students. Developmental attributes of the sample may have influenced the findings to a given degree.

The link between autonomy support and mindsets has also given rise to mixed findings. For instance, the study by Jin (2022), which aimed to establish the prediction of self-regulation from autonomy support and mindsets in online learning necessitated by the COVID pandemic, suggests the contrary. A total of 414 (55.7% female) university students across the United States responded to an online survey on the respective variables. While preliminary correlation analyses found a significantly weak positive relationship between mindsets and autonomy support, structural equation modelling found the path to be insignificant. However, the study used non-probability sampling to arrive at the sample. This may inadvertently restrict the applicability of the results. Additionally, the inquiry targeted university students who are qualitatively different from secondary school students. The current study used proportionate sampling techniques on a secondary school sample.

In the investigation on Chinese university students by Ma et al. (2020), a non-significant link between teacher autonomy support and mindsets was also found. Despite the unexpected relationship, teacher autonomy support was a better predictor of growth mindsets as compared to parental autonomy support. This aligns with the decreased parental reliance on students in university vis-à-vis an increase in teacher socialisation. Miller et al. (2021) have, additionally, pointed out variations in the need for autonomy across cultures. In a comparison between individualistic and collectivist cultures, the need for autonomy was significantly greater for adolescents in

individualistic cultures. On this consideration, there was a need to carry out a study to further the understanding of the link between the variables in a rather individualistic culture.

2.4.3 Relationship Between Mindsets and Learned Helplessness

A student's belief in the malleability of intelligence is cardinal in the academic context, especially in the face of challenges. These beliefs dictate one's reactions to failure experiences. A helpless individual does not believe in their abilities, skills and attributes to effect change. They hold the belief that intelligence is unalterable and therefore nothing can be done to change this. Students holding incremental beliefs are more resilient and persistent in the face of adversity and are resultantly less prone to helplessness reactions (Kapasi & Pei, 2022). The reviewed literature herein links mindsets to LH reactions.

Ziegler et al. (2021) carried out a longitudinal investigation to assess how learners' perceptions of ability and availability of requisite digital learning resources impacted LH among students. The study, which involved 5536 university students, sought to establish the mediation of mindsets. Invitation and subsequent participation in filling in questionnaires were conducted online. Structural equation modelling indicated that the level of competence and availability of resources are positively and significantly related to LH. The most striking effect was found in the mediation of entity beliefs on the relationship between the availability of digital skills and LH. As noted, there is an ethical concern about the privacy of participants' data since emails were used to recruit participants, while online forms were used to fill in data. The current study will use direct administration of the instrument.

Smiley et al. (2016) investigated the relationship between the implicit theories framework and post-failure response with causal explanations, emotions and goals as mediators. The US sample responded to a questionnaire. Data analysis was through path analysis. Students who adopted an incremental view of intelligence were found to attribute failure to a lack of effort and goal setting. This class of students bounced back from failure experiences by seeking remedial action. For students with fixed mindsets, post-failure was characterised by disinterest, shame and withdrawal from learning tasks. Unlike the current study, this study sampled the mentioned behaviours at the post-secondary level. Given the differences in the study's contextual norms, findings' applicability is limited to tertiary institutions in the United States.

In a qualitative study, Hassan (2021) conducted interviews to assess learned helplessness among Singapore university students in an English language programme. Students exhibiting learned helplessness confirmed that they did not dedicate effort to improving their language skills and were not actively engaged in classrooms. The helpless learners displayed helpless mindsets and only enrolled in the class, not because they hoped to develop their skills in English, but rather as a means to begin their degree course. This study, however, used a qualitative approach that makes it difficult to establish the statistical significance of the findings. In the current investigation, the researcher employed a quantitative approach.

In Nigeria, a theoretical review of learned helplessness by Igundunasse and Ibidapo (2019) explored malleable mindsets as a potential for learned helplessness. A growth mindset is characterised by the volition to face challenges and resilience in the face of defeat. Maternal mindsets were also put into consideration. They are argued to

communicate a lasting view of intelligence to the child. The negative feedback from fixed-mindset parents is an undoing to children as they communicate a negative view and resulting in helplessness. Accordingly, mindset interventions have proved to have efficacy in terms of better scholarly outcomes.

In Mombasa County, Kenya, Mwangi et al. (2018) undertook a study to determine whether mindsets predicted scholarly achievement. A sample of 421 secondary school learners and 10 teachers were administered questionnaires and interview schedules, respectively. Data were analysed using correlation analysis and linear regression. It was found that mindsets were significantly associated with scholarly achievement. The stability framework of intelligence was negatively and significantly associated with achievement. In contrast, growth mindsets were positively, however insignificantly, associated with scholarly achievement. While the study offers insights into local patterns of mindsets, the exact manner in which they are linked to perceptions of non-contingency has not been explored. Thus, the current study aims to link this with LH.

2.5 Summary of Literature Review and Gap Identification

The review was aligned with the four objectives guiding the study. Studies on the relationship between controlling teaching and parenting and LH were reviewed. Studies on the mindsets' mediation of the relationships between psychological control were also explored.

From the reviewed studies, the majority of the studies indicate that parental control is a positive predictor of LH. Psychological control was found to be varied across cultures. Adolescents in more individualistic cultures were shown to be more affected by the frustration of the need for autonomy as they displayed more problem behaviours.

A comparison between maternal and paternal psychological control on learned helplessness showed variations in different cultures according to the dominant figure of exerting control. Maternal control was shown to be domineering in studies in Western contexts, while paternal control was more exerted in more conservative cultures such as East-Asian. Variations were also established across different age groups. Literature and meta-analytical studies indicated that controlling tendencies had more serious consequences on adolescents than on children. Developmental needs associated with puberty meant that frustration of autonomy had more negative outcomes on adolescents than on children, who tended to view psychological control as a well-intentioned practice. As adolescents transition to emerging adulthood, the condescending nature of controlling parenting negatively affects their beliefs about ability and success.

Controlling teaching was established to be predictive of LH in most studies, although one study gave completely inconsistent findings. However, study designs, age differences in samples and cultural differences were established to moderate the relationship. There were also contradictory findings, where autonomy-supportive practices were found not to alleviate learned helplessness. When compared with parental control, controlling teaching was found to have a more prominent role in predicting LH. Teacher psychological control is relatively a new construct, and as a result, there is little evidence of the practice in African and specifically Kenyan curriculum contexts.

Literature was explored to highlight the rationale behind the conceptualisation of the mediation of mindsets. The findings were, however, mixed as a function of sample

differences, sampling techniques, study designs and cultures too. The informants on the variables under study, especially on the parental psychological control, gave significantly varied accounts. Father reports were found to be higher across studies than maternal or perceived adolescents' self-reports. Consistent with the literature, however, mindsets were found to be related to both parental and teacher psychological control, both as a predictor and a mediator in the majority of studies. This points out the potential mediation of mindsets in the relationships.

Overall, inconsistencies in these studies as a result of the use of different research designs, methods and tools, as well as age differences in samples, cultural influences, differences in sampling techniques and informants' perspectives were found. Moreover, most studies were conducted in the developed world and, thus, may not be said to be true to the local context. In Africa, more specifically, the Kenyan educational context, there is no known study on the prediction of learned helplessness by psychological control, as well as the mediation of mindsets. It was on this basis that this study was undertaken.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This section is an exposition of the methodology, wherein the locale, variables and target population of the study are explored. Moreover, sampling techniques and procedures, determination of sample size, Research instruments and the instrument's reliability and validity based on the pilot study findings were discussed. Lastly, data collection and analysis practices, logistical and ethical considerations are also described.

3.2 Research Methodology

The study is founded on a positivist paradigm. This approach facilitates both the exploration of relationships among variables and the collection of quantitative data on instruments based on objective participant-completed measures (Thapaliya & Pathak, 2022).

3.3 Research Design

A correlational study design forms the basis of the study. The design affords the convenience to describe the relationships between variables of interest (Kotronoulas & Papadopoulou, 2023). Correlational designs do not require the manipulation of variables, which makes them suitable for ethical research on human populations, especially in cases where the variables under study cannot be manipulated. Creswell and Creswell (2022) add that, whilst correlational research design does not allow for direct causal inferences to be made, this approach provides a potentially salient tool for identifying potential causal relationships that can then be tested using in-depth causal methods.

The design is considered fit for the investigation since, primarily, the aim was to explore the relationship between psychological control and LH. It is also ethically impractical to manipulate students' perceptions of psychological control, helplessness levels, and mindsets as they are relatively stable constructs. Moreover, a model-testing approach was employed to assess the theoretical proposition of the mediation of mindsets in the relationship between psychological control and LH. This makes it possible to determine underlying mechanisms and inform on potential intervention points for altering relationships between predictors and outcomes (Hoffman et al., 2020).

3.4 Variables of Study

Table 3.1 outlines the variables under study.

Table 3.1

Variables of the Study

Variable	Variable type	Level of Measurement
Perceived parental psychological control	Predictor	Interval
Perceived teacher psychological control	Predictor	Interval
Mindsets	Mediator	Interval
Fixed Mindsets		Interval
Malleable Mindsets		Interval
Learned helplessness	Outcome	Interval

From Table 3.1, students perceived parental and teacher psychological control are the predictor variables. Perceived parental psychological control has two subdimensions: maternal and paternal control. Learned helplessness is the outcome variable, while mindsets are a mediator. All variables were measured at the interval scale.

3.5 Locale of the Study

The inquiry was undertaken in Makueni Subcounty, Makueni, Kenya. Makueni is a majorly rural semi-arid county characterised by occasional famine, high poverty rates (60%) and hardships. Additionally, situations of hardships and challenges, such as poverty and hunger, that may be perceived as a threat to personal autonomy, foster perceptions of helplessness (Ziegler et al., 2021). This, coupled with the competitive nature of the current educational systems, may exacerbate helplessness among learners.

Additionally, parenting practices between rural and urban parents tend to differ. As Li et al. (2021) point out, rural parents often demand more from their children in regard to scholarly achievement and morally acceptable behaviours. Resultantly, these parents are more likely to adopt controlling tendencies to enforce this. This is supported by findings by Ogoma (2019), where students from rural settings showed a more pronounced relationship between authoritarian parenting, which is characterised by more controlling tendencies, and learned helplessness. It was therefore of interest to understand the relationship between controlling parenting and learned helplessness in a majority rural setting.

Research into learned helplessness across different samples has also given rise to contradictory findings. These findings' recommendations to conduct studies across different contexts have been made (Ghasemi, 2021; Raufelder et al., 2018). The deficiency in concrete findings on the problem in the locale means that the interaction between the variables could only be hypothesised. It was, therefore, imperative to explore the manifestation of LH in Makueni Sub-County

3.6 Target Population

Form three students in Makueni Sub-County, Makueni County, were the primary target of the study. This was the ideal population since it has undergone an extensive range of educational

experiences and failures alike that may predispose them to learned helplessness (Braunwell, 2016). Students in lower forms may adopt a more optimistic orientation towards failure since they have interacted with significantly less learning content and believe they have adequate time to improve their performance. Also, with national examinations nearing, the learners are confounded with increasing pressure to post better performance. The accessible population was the 3890 (1988 girls) form three students of the year 2023 from the 48 public secondary schools across Makueni Sub-County.

3.7 Sampling Techniques and Sample Size Determination

3.7.1 Sampling Techniques

Form three students in Makueni Sub-County, who form the target population, were purposively sampled as they are more likely to produce more appropriate and meaningful information due to their attributes. Campbell et al. (2020) assert that purposive sampling is valuable when the investigator seeks particular characteristics that are of interest to the inquiry. Stratified random sampling based on shared characteristics (coeducational, boarding boys & girls' categories) was employed to select the participating schools (Iliyasu & Etikan, 2021). Stratification was both on school type and gender. The respective respondents were randomly selected from individual sampled schools. This was drawn from the class lists from which respondents were selected through a lottery system. The technique is ideal as it's bias-free (Bolarinwa, 2020).

3.7.2 Sample Size Determination

To establish the size of the sample, Krejcie and Morgan's (1970) table (Table C1) was utilised. The sample was determined to be 351. To accommodate for respondent misconduct and non-response, a formula devised by Bruke and Christiansen (2014) was used:

Adjusted Sample Size = Proposed Size of Sample/ Anticipated Rate of Response.

The proposed sample was 351; and, considering that recent self-administered measures studies among similar secondary school samples (Masila, 2022; Mutinda, 2022) have ranged between 86% to 93% the anticipated response rate was set at .85 (85%). From the foregoing, the overall adjusted number of respondents was 413, which is an ideal participant count for conducting SEM analysis. According to Hair et al. (2012), a sample of not less 150 is the minimum allowable for a study with seven or fewer latent constructs with 3 or more indicators each. Respondents for each school stratum were determined by Kish's (1965) formula:

$$[\frac{\text{Size of Stratum}}{\text{Total Population}} \text{X Sample Size}]$$

Table 3.2

Sampling Frame

SS	TSP	APFTS		Sample Size		
				Schools	Students	
		Boys	Girls		Boys	Girls
Boys Boarding	7	996	--	2	105	--
Girls Boarding	5	--	852	2	--	90
Co-educational Day& Boarding	14	392	463	3		53
Co-educational Day	22	514	671	4	54	69
Total	48	1902	1988	11	201	212

Note: SS = School Strata; TSP = Total School Population; APFTS = Accessible Population of Form Three Students.

3.8 Research Instrument

To elicit data on the various constructs, a structured questionnaire was used. This tool (see Appendix B) consists of five subsections on the variables relevant to this study. The initial section requires the respondent to fill in their demographic attributes; the remaining sections

are measures of the respective variables. The researcher sought permission to use the tools from the authors (*see* Appendix E).

3.8.1 Psychological Control Scale - Youth Self-Report Questionnaire (Barber, 1996).

Respondents' views on controlling parenting were assessed using this scale. The tool is tailored to assess adolescents' perceptions of controlling parenting and was adapted to assess both the maternal and paternal components. Considering that the tools used the same items for both dimensions, an attention check was instituted to enhance data quality and minimise acquiescence bias (Geisen, 2022). Further, the responses were doubled from three to six responses per item. Rodgers (2023) points out that wider response items give time for self-reflection, making them more reliable. Respondents are expected to rate 8 items along a three-point summative scale spanning from 'not like him/her' to 'a lot like him/her'. According to Barber et al. (2005), the tool is psychometrically robust in the prediction of adolescent behaviours as demonstrated across diverse samples. In a recent study reliability of $\alpha = .77$ and .79 for maternal and paternal control, respectively, was found (Aydin & Özyürek, 2021). Scoring involves the summation of all items; scores range from 8 to 48. Scoring for maternal and paternal sections was done independently and involved the summation of items with a score higher than 16, indicating high levels of perceived psychological control.

3.8.2 Psychologically Controlling Teaching Scale -Student Report (Soenens et al., 2012)

To tap into students' views of controlling teaching, the PCT-SR was utilised. The measure is a seven-item five-point summative scale requiring the students to respond to seven statements depending on their agreement with the item. A sample item is *"My teacher often interrupts me"*. The instrument is based on items from earlier developed measures of parental psychological control, including the PCS-YSR. In developing the tool, five items were directly

adapted for the teacher dimension, while the remaining two were tailored to capture unique aspects of teacher control. The tool has established factorial validity and Cronbach's α values ranging from .80 to .89. Scoring involves the computation of individual means of each item. An average score for all the items is deemed reflective of the respondent's perceptions of controlling teaching. Item scores range from one and five, with a score of 1.92 considered median and a score one standard deviation below and above the score is considered as low and high levels of perceived teacher psychological control, respectively.

3.8.3 Implicit Theories of Intelligence Scale (IToIS, Dweck & Molden, 2000)

Measuring respondents' mindsets employed the IToIS. It is a five-point bipolar Likert scale, with strongly agree and strongly disagree being the extremes. It consists of eight items, where half the items measure fixed beliefs (Items 1, 2, 4 & 6) while the rest assess incremental perceptions of competencies. Items were rephrased in the first-person point of view. The measure is ideal for the study as it has been found to have adequate reliability of α = .89 on a Kenyan sample (Mutua et al., 2018). Fixed-mindset items were reverse-coded. A global score yielded a general malleable score, which ranged from 8 to 40. A score of 24 and below indicated fixed mindsets.

3.8.4 Learned Helplessness Scale (LHS, Quinless & Nelson, 1988)

The students' perceived level of LH was quantified using the LHS. The measure is in the public domain (Quinless, 2020). Respondents were required to rate according to the degree of agreement with each of the 20 items on the scale. The four-point bipolar Likert scale has received adequate cross-cultural validity and reliabilities ranging from α = .79 to .93 among samples of secondary school students (Acheho, 2018). Half the items measure mastery orientation (Items 2, 3, 5, 6, 10, 12, 14, 16, 19 & 20) and were reverse-coded. A composite

score was computed and ranged between 20 to 80, where scores above 60 were indicative of high LH.

3.9 Pilot Study

A feasibility investigation involving 48 (24 female) form three students in the subcounty, selected using simple random sampling, was conducted. It was meant to ascertain the clarity of instructions, validity, and dependability of the instruments in the current locale. The sample fell within the benchmark recommended pilot study sample size of between 10 to 15% of the total sample size according to Tseng and Sim (2021). The respondents were drawn from a randomly selected co-educational school. Analyses of the data pointed out areas for refining the instruments to suit the target population. This was through checking for clarity and comprehension of the items, ambiguities and testing for response patterns and flow, as well as practicality and logistics.

The respondents were asked to identify ambiguous or unclear elements in the questionnaires. One such recommendation was the definition of the term intelligence. Revisions of the questionnaires to capture intelligence as "The general mental ability reflected in aspects such as academic performance" in the introduction were undertaken. Additionally, a double negative statement in the Learned Helplessness Scale, item 8, was pointed out as ambiguous: "*When something doesn't turn out the way I planned, I know it is because I didn't have the ability to start with"*. The item was rephrased in the affirmative and reverse-coded in the subsequent analyses. Moreover, the term "*co-educational schools*" was found unclear and was therefore replaced by "*mixed schools*".

Analyses of the data identified potential acquiescence bias in the paternal and maternal psychological control subsections, considering the similarity in the two scales. To minimise

respondent misconduct and increase the reliability and validity of the scales (Sharpe et al., 2022), an attention check was instituted on item six of the maternal psychological control subscale. The credibility of the logistical assumptions on the completion time and the suitability of the data administration method were confirmed. The time for completion of the questionnaire was established to be under 30 minutes. Lastly, the reliability of the tools was also established. The real data collection process excluded the school used in the pilot. The validity and reliability of the instruments are discussed in the subsections that follow.

3.9.1 Validity of the Instruments

In the pilot, construct, face, and construct validity were established. Random selection of the respondents ensured increased internal and external validity of the instruments. Face validity was guaranteed by checking for the review of all the questions about the respondents' characteristics by peers. Content and construct validity were ensured by expert review by supervisors from the university. A rigorous review from peers and university supervisors at the Kenyatta University Department of Psychology established that the instruments were suitable for the measurement of the variables. At the piloting stage, construct validity was ensured by the use of established measures of the constructs.

3.9.2 Reliability of the Instruments

Cronbach's alpha internal consistency was used to ascertain the measures' reliability. The coefficient is considered among the most reliable measures of consistency for summative scale measures (Ravinder & Saraswathi, 2020). Its use has been widely accepted and is considered to have the least amount of measurement error compared to other reliability coefficients, with coefficients greater than .7 considered permissible (Barbera et al., 2020). The reliability coefficients for the adapted scales are provided in Table 3.3.

Table 3.3

Internal Consistencies Obtained for the Measures

Scale	# Items	Author's α	Pilot's α
Perceived Paternal Psychological Control	8	.82	.78
Perceived Maternal Psychological Control	8	.80	.74
Perceived Teacher Psychological Control	7	.75	.62
Mindsets	8	.86	.71
Learned Helplessness	20	.85	.67

As indicated in Table 3.3, the obtained internal consistency estimates for the respective scales were acceptable at $\alpha = .78$ and $\alpha = .74$ for the paternal and maternal dimensions of the PCS-YSR; $\alpha = .62$ for the PCT-SR, $\alpha = .71$ for the IToIS and lastly an $\alpha = .67$ for the LHS. These estimates fell within acceptable values for comparable samples in Turkey (Aydin & Özyürek, 2021), Nigeria (Acheho, 2018), Italy (Filippello et al., 2018) and Kenya (Mutua et al., 2018).

3.10 Data Collection Techniques

With the help of research assistants, the researcher administered the questionnaires in person. The technique involves issuing paper and pencil questionnaires with predetermined questions. This was necessitated by the need to gather a significant amount of data within a restricted period whilst circumventing response bias. By clarifying questions, encouraging honesty and ensuring completeness, Feng et al. (2021) delineate that in-person administration enhances data quality. Data collection was conducted at agreed-upon times on breaks, outside class time, to minimise disruption of learning schedules. The researcher and his assistants explained the study's aim and offered guidelines for answering the questionnaire. The completion time fell between 28 and 40 minutes.

3.11 Data Analysis

Data obtained were coded, tabulated, and keyed in. The first two hypotheses utilised the Statistical Package for Social Sciences (SPSS) tool version 25, while hypotheses three and four used the SPSS AMOS version 26. Respondents' descriptions of the respective variables were first undertaken prior to conducting inferential statistics. The following correlational and structural equation modelling hypotheses were tested at $\alpha = .05$ (2-tailed).

$H_{01:}$ There is no significant correlation between perceived parental psychological control and LH.

To examine the hypothesis, two supplementary hypotheses for the maternal and paternal dimensions are advanced.

$H_{01.1}$: There is no significant correlation between perceived paternal psychological control and LH. (Statistical Test: Pearson's Product-Moment Correlation Coefficient).

$H_{01.2}$: There is no significant relationship between perceived maternal psychological control and learned helplessness. (Statistical Test: Pearson's Product-Moment Correlation Coefficient).

$H_{02:}$ There is no significant relationship between perceived teacher psychological control and LH. (Statistical Test: Pearson's Product-Moment Correlation Coefficient).

$H_{03:}$ Mindsets do not significantly mediate the relationship between perceived parental psychological control and LH.

To explore the third hypothesis, H_{03}, two distinct models were formulated.

$H_{03.1:}$ Mindsets do not significantly mediate the relationship between perceived paternal psychological control and LH. (Statistical Test: Structural Equation Modelling).

$H_{03.2:}$ Mindsets do not significantly mediate the correlation between perceived maternal psychological control and LH. (Statistical Test: Structural Equation Modelling).

$H_{04:}$ Mindsets do not have a significant mediation role in the relationship between perceived teacher psychological control and LH (Statistical Test: Structural Equation Modelling).

3.12 Logistical and Ethical Considerations

3.12.1 Logistical Considerations

The researcher made a submission for a research permit from the National Council for Science, Technology and Innovations (NACOSTI) following receipt of a research clearance from the Kenyatta University (KU) Graduate School. This permit was presented to the County Educational Office and, subsequently, to the school principals of the participating schools. Deans of studies, school and class teachers of the participating classes were informed beforehand via letters to prevent disruption of critical schedules.

3.12.2 Ethical Considerations

To ensure confidentiality, the coding of the information obtained from the questionnaires was done independently to mitigate researcher bias. Subsequent to authorisation by the school head, the respondents were required to fill out a consent form (Appendix A) alongside their class teachers, who served as legal guardians, indicating that there was no form of coercion to participate or any harm from participation. In adherence with the principle of beneficence and

non-maleficence, the respondents were briefed on the procedures and potential benefits from participation. Additionally, respondents were accorded the option to withdraw from the study at any point, in the event that they felt uncomfortable divulging sensitive information. There was no identifying information in the questionnaires.

CHAPTER FOUR

PRESENTATION OF FINDINGS, INTERPRETATION, AND DISCUSSION

4.1 Introduction

The findings and their implications are laid out in this section in tandem with the research objectives. For each objective, descriptive statistics are first reported. Thereafter, inferential statistics pertinent to each hypothesis are outlined.

4.2 General Demographic Information

This section describes the proportion of students who responded to the survey and their demographic makeup.

4.2.1 Data Cleaning

A total of 413 questionnaires were distributed to the intended respondents across 11 secondary schools. Of these, only 394 questionnaires were returned. Data entry and cleaning were conducted on the collected data to identify errors, respondent misconduct, abandonment and multivariate outliers. In ensuring data quality and checking for response bias, the attention check failure rate was assessed. Upon investigation, the attention check fail rate was 3.16% (8 respondents), which is within the average fail rate of 1 to 5% of the respondents (Geisen, 2022). The data on the eight were exported to Microsoft Excel to assess response patterns. Collier (2020) offers guidelines that researchers ought to use to determine the acceptable level of disagreement on Likert items to set a basis for response bias. A standard deviation of less than 2.5 in Likert scale responses, even before reverse coding negative items, suggests a potential pattern of acquiescence bias, where respondents consistently agree without fully considering each statement. Seven of the respondents' data were discarded for having a standard deviation

of less than 2.5 on two or more scales. Having addressed respondent misconduct concerns, data were screened for outliers based on the Mahalanobis distance test (Mikkonen et al., 2022). Four outliers were identified, and the respondents' data were discarded, resulting in a total sample size of 383. Considering that the remaining participants had five or fewer missing values across the scales, the existing missing values were populated using the linear interpolation option in line with the recommendations from Norazain et al. (2011), which is based on the assumption of linearity of the distribution.

4.2.2 Return Rate

The respondents' return rate across the school types is outlined in Table 4.1.

Table 4.1

Respondent Return Rate

School Type	Expected Return Rate	Realised Return Rate	(%)
Boys Boarding	105	98	94.23%
Girls Boarding	90	84	93.33%
Co-educational Day & Boarding	94	91	96.81%
Co-educational Day only	123	110	89.43%
Total	413	383	92.74%

From Table 4.1, the response rate was 92.74% which is considered excellent. Per recommendations by Wu et al. (2022), a return rate of 80% and above is considered reasonably representative of the research population.

4.2.3 Demographic Characteristics of Respondents

In this inquiry, the respondents were required to provide information on their age, gender and school type. This subsection is a description of the student's background information. A description of the respondents' age is provided in Table 4.2.

Table 4.2

Descriptives of Ages for the Respondents

N	Range	*Mnm*	*Mxm*	*M*	*SD*	*Sk*	*Kur*
383	8	14	22	16.82	1.08	1.07	2.62

The ages of the respondents ranged between 14 and 22, with an average age of 16.82 (*SD* = 1.08). As demonstrated, students were within the normal school age for students in Kenya (Mathenge 2022). Further, skewness and kurtosis values were 1.07 and 2.62, respectively. In line with the guidelines from Tabachnick and Fidell (2019), the age distribution of the sample is reasonably normal. Further, the gender characteristics in the sample were assessed, and the findings are provided in Table 4.3.

Table 4.3

Descriptives of Respondents' Gender

Gender	Frequency	Percentage (%)
Male	179	46.7
Female	204	53.3
Total	383	100.0

Table 4.3 indicates that male respondents were 179, while female respondents were 204. Female respondents formed the majority of the sampled students (53.3%) while male respondents were slightly lower at 46.7%. This indicates a gender parity in favour of girls, which is in line with the national enrollment levels by gender (Muruga & Machio,

2024). Moreover, a cross tabulation of ages by gender was and the significance of the differences was assessed using an independent samples t-test. Findings are reported in Table 4.4.

Table 4.4

Descriptives of Age by Gender

	n	*Mnm*	*Mxm*	*M*	*SD*	*Sk*	*Kur*	Independent Samples t-test	
Male	179	14	22	17.01	1.06	1.04	2.71	*T (Sig 2-t)*	*Df*
Female	204	15	22	16.66	1.06	1.18	3.00	3.16 (.082)	381

Note. n = Sample by gender

Table 4.4 indicates that males had an average age of 17.01 (*SD* = 1.06), whilst female respondents had a slightly lower age on average of 16.66 (*SD* = 1.06). Further, the t-test analyses establish that there were no significant age differences with students' gender; *t* (381) = 3.16, *p* = .085, denoting that the sample was homogenous. Kurtosis and skewness values show that age was normally distributed in both male and female respondents as per the guidelines by Bono et al. (2020), who suggest that a normal distribution should range between ±2 and ±10 in skewness and kurtosis values, respectively. Additionally, a cross-tabulation between age and school category was explored, and the findings are provided in Table 4.5.

Table 4.5

Description of Students' Age by School Type

	n	*Mnm*	*Mxm*	*M*	*SD*	*Sk*	*Kur*	One-Way ANOVA	
								F (Df)	*Sig 2-t*
BoB	98	14	20	16.79	0.94	0.60	1.37		
GoB	84	15	18	16.45	0.66	0.66	-0.40	20.28 (3,	.706
Co.D	110	15	22	17.42	1.23	1.51	2.12	379)	
Co.D&B	91	15	20	16.48	0.91	0.83	3.88		

Note. BoB = Boys-only boarding school; *GoB* = Girls-only boarding; *Co.D* = Coeducational day-only schools; *Co.D&B* = Coeducational day and boarding schools; *n* = Sample per school strata;

As indicated in Table 4.5, students from coeducational day-only schools had the highest age on average and the widest distribution of scores (*M* = 17.42; *SD* = 1.23). These were followed by coeducational day and boarding schools' students with an average age of 16.48 (*SD* = 0.91), then boys' boarding schools (*M* = 16.79; *SD* = 0.94) and lastly girls' boarding schools (*M* = 16.45; *SD* = 0.66). In line with suggestions from Tabachnick and Fidell (2019), the skewness and kurtosis values for all the school types were within the recommended benchmarks of between ±2 and ±10 in skewness and kurtosis values, respectively. Further probit analysis using one-way ANOVA shows that the differences in age by school type were significant; F (3,379) = 20.28, p > 05. Students' ages were clustered into three categories and cross-tabulated with students' ages. The findings are tabulated in Table 4.6.

Table 4.6

Respondents' Age by Gender

Sex	Age			Descriptive Statistics			
		n	*N*	*M*	*SD*	*Sk*	*Kur*
Female	Below 16	103	204(53.3)	16.66	1.06	1.18	3.00
	17years	66					
	18 and over	35					
Male	Below 16	58	179(46.7)	17.01	1.06	1.04	2.71
	17 years	79					
	18 and over	42					
Total			383(100)	16.82	1.08	1.07	2.62

Note. n =Within age group total: *N* = Participants total by sex; () = Percentages of totals

Table 4.6 shows that the average age of the participants was 16.82 (*SD*=1.82) within an age range of 8 years, ranging between 14 and 22. This is in tandem with the national average age of between 14 to 17 years for secondary school-going students (Mathenge et al., 2022). Respondents aged between 14 and 16 were the majority (42%), followed by 17-year-olds (37.9%) and later by those in the age bracket 18 to 22 (20.1%). The mean age of boys, which was 17.01, was slightly higher than that of girls, 16.66. The majority of the boys were aged 17 (44.1%), whilst nearly a third of the boys were aged between 14 and 16 (32.4%). Half the girls (50.5%) were aged between 14 and 16, followed by those aged 17 (32.4%) and then those 18 years and older (17.2%). Skewness and kurtosis values indicate that the sample was within the benchmarks of a normal distribution. As stipulated in Hatem et al. (2022), skewness and kurtosis values should range between ±2 and ±10, respectively, for a distribution to be considered normal.

4.3 Relationship Between Perceived Parental Psychological Control and Learned Helplessness

Firstly, the study sought to establish the relationship between perceived parental psychological control and LH. In the subsections that follow, the descriptive statistics on levels of parental control in both maternal and paternal aspects, as well as learned helplessness levels, are explored. Findings on the hypothesis testing on the sale are presented last.

4.3.1 Description of Participants' Perceptions of Parental Control

Perceptions of controlling parenting were measured using the PCS-YSR by Barber (1996). Maternal and paternal aspects were measured and scored separately. The views of parental psychological control levels were operationalised as the summated levels of the PCS-YSR. The levels of perceived psychological control were measured along a six-point summative scale, with the extremes being *not like him/her* to *a lot like him/her*. An average of the composite score was generated, with scores expected to range between 1 and 6. Reliability analysis yielded acceptable α of .78 and .74 for the paternal and maternal sections, respectively. Descriptives on the respondents' levels of perceived psychological control are shown in Table 4.7.

Table 4.7

Descriptives on the Scores of Perceived Parental Psychological Control.

Section	Range	*Mnm*	*Mxm*	*M*	*SD*	*Sk*	*Kur*
Paternal PCS – YSR	4.63	1	5.63	2.42	0.80	0.86	0.95
Maternal PCS – YSR	4.63	1	5.63	2.47	0.84	0.84	0.96

Note. $N = 383$

In regard to perceived paternal psychological control, Table 4.7 shows that participants had an average score of 2.42 (*SD* = .80) with a considerably small standard deviation. The scores ranged from 1 to 5.63 against an expected range of 1 and 6. An overview of the skewness, *Sk* = 0.86 and kurtosis values, *Kur* = 0.95, indicate reasonable probability distributed scores on perceptions of paternal psychological control as stipulated in the guidelines by Bono et al. (2020).

The maternal scale had a mean of 2.47 (*SD* = 0.84), which was slightly higher and more dispersed than that of the paternal section. Scores ranged from 1 to 5.63, whilst Kurtosis, *Kur* = 0.96, and skewness, *Sk* = 0.84, values indicate points to normally distributed scores on the construct. According to Bono et al. (2020), skewness and kurtosis values for a normal distribution should range between ±2 and ±10, respectively. Additionally, analyses of scores per gender were conducted. The findings are tabulated in Table 4.8.

Table 4.8

Parental Psychological Control Scores by Gender

Section		Range	*Mnm*	*Mxm*	*M*	*SD*	*Sk*	*Kur*
Paternal PCS – YSR	Male	4.63	1	5.63	2.43	0.80	0.97	1.41
	Female	3.88	1	4.88	2.41	0.76	0.73	0.50
Maternal PCS – YSR	Male	3.88	1	4.88	2.44	0.76	0.73	0.61
	Female	4.63	1	5.63	2.49	0.90	0.87	1.01

Note. PCS–YSR= Psychological Control Scale – Youth Self-Report Scale

Scores on perceived paternal psychological control show that male respondents had slightly higher perceptions of controlling fathers (*M* = 2.43, *SD* = 0.80) than their female counterparts (*M* = 2.41, *SD* = 0.76). Additionally, their scores had a wider range

compared to those of female respondents. Skewness and Kurtosis values show that both distributions of scores were normal (Tabachnick & Fidell, 2019). Conversely, female respondents showed higher perceptions of perceived paternal psychological control (*M* = 2.49, *SD* = 0.90) as opposed to male respondents with a mean value of 2.44 (*SD* = 0.76). An independent samples t–test was performed to ascertain the statistical significance, or lack thereof, of these differences. Table 4.9 reports the outcome.

Table 4.9

Independent Samples t-test for Perceived Parental Psychological Control by Gender

	t	*Df*	*Sig (2-tailed)*
Perceived paternal psychological control	-0.59	381	.555
Perceived maternal psychological control	0.21	381	.835

The independent samples t-test established that there were no statistically significant gender differences in both perceived maternal psychological control, t (381) = 0.21, p > .05 and perceived maternal psychological control, t (381) = -0.59, p > .05. Therefore, students' perceptions of controlling parenting, both maternal and paternal, do not vary by gender. Moreover, the unique Kenyan educational system, where boarding schools are the norm, may moderate the perceived parental control level. Therefore, a description of the perceived levels of controlling parenting was analysed on the boarder-day scholar dichotomy and reported in Table 4.10.

Table 4.10

Descriptives for Perceived Parental Psychological Control by Schooling Mode

Section		Range	*Mnm*	*Mxm*	*M*	*SD*	*Sk*	*Kur*
Paternal PCS – YSR	Boarding	4.63	1	5.63	2.38	0.81	0.98	0.34
	Day Schoo	3.75	1	4.75	2.46	0.79	0.73	0.50
Maternal PCS – YSR	Boarding	4.63	1	5.63	2.49	0.91	0.85	0.70
	Day Schoo	4.38	1	5.38	2.44	0.74	0.71	1.16

Table 4.10 shows that students who boarded had lower perceptions of paternal control (M = 2.38, SD = 0.81) compared to day scholars (M = 2.46, SD = 0.79). Thus, students who had frequently and closely interacted with their fathers reported higher scores of parental control. Unexpectedly, day scholars recorded lower levels of perceived maternal psychological control (M = 2.44, SD = 0.74) than boarders (M = 2.49, SD = 0.74), which reflected that those in close contact with their mothers had lower perceptions of control. Building on this, an independent samples t–test was performed. The obtained findings are displayed in Table 4.11.

Table 4.11

Independent Samples t-test on Perceived Parental Psychological Control by Schooling

	t	*Df*	*Sig (2-tailed)*
Perceived paternal psychological control	0.90	381	.831
Perceived maternal psychological control	-0.59	381	.553

As displayed on Table 4.11, the study did not establish any statistically significant differences in students' self-reported levels of psychological control across the day schooler and boarder schooling mode for paternal (t (381) = 0.90, p > 0.05) and maternal (t (381) = -0.59 p > 0.05) dimensions.

To have a better understanding of the distribution, the scores were classified as low, medium and high. Table 4.12 shows participant scores categorised as high, medium and low. Applying the clinical cutoff used in Barber et al. (2005), scores one standard deviation below and above the mean were classified as low and high, respectively, whilst those in between were grouped as medium.

Table 4.12

Participants Perceived Parental Psychological Control Levels

Perceived Parental Psychological Control	Paternal		Maternal	
	Frequency (%)	*M(SD)*	*F (%)*	*M(SD)*
High	48 (12.5)	3.98 (0.52)	53 (13.8)	3.84 (0.58)
Moderate	282 (73.6)	2.35 (0.43)	276 (72.1)	2.39 (0.45)
Low	53 (13.5)	1.34 (0.20)	54 (14.1)	1.34 (2.0)

Note. () = Percentages of Totals

From Table 4.12, nearly three-quarters (73.6%) of the sample had moderate levels of perceived paternal psychological control. These were followed by those with low (13.5%) and lastly those with high levels, with 12.5 in percentage. Further, on perceived maternal psychological control, although slightly lower than in the paternal section, a majority (72.1%) of the respondents had medium levels. An additional 14.1% had a low, whilst 13.8% had high levels.

4.3.2 Descriptions of Respondents' Levels of Learned Helplessness

The students' levels of LH were quantified on a 20-item LHS by Quinless & Nelson (1988). This is a four-point bipolar summative scale with responses ranging from *strongly disagree* (1) to *strongly agree* (4). An average score was thereafter computed to generate a learned helplessness score with expected minimum and maximum scores of 1 and 4,

respectively. The scale yielded an internal consistency of α = .67. Table 4.13 below is a report on the descriptive analysis of the learned helplessness scale.

Table 4.13

Descriptive Statistics on Participants Levels of Learned Helplessness

N	Range	*Mnm*	*Mxm*	*M*	*SD*	*Sk*	*Kur*
383	1.9	1.20	3.10	2.07	0.33	0.41	0.13

As shown in Table 4.13, the learned helplessness scores had a range of 1.9, with a minimum of 1.20 and a maximum of 3.10. The distribution had a mean of 2.07 (*SD* = 0.33), the distribution was slightly positively skewed (Skewness = 0.41) with a kurtosis value of 0.13. These indicate that the sample was reasonably normal. In alignment with Bono et al.'s (2020) findings, the acceptable range for skewness in a normal distribution is ideally between ±2, and for kurtosis, it should fall within the range of ±10. Moreover, an examination of the scores based on gender was conducted, and the results are presented in Table 4.14.

Table 4.14

Learned Helplessness Scores by Gender

Gender	*N*	Range	*Mnm*	*Mxm*	*M*	*SD*	*Sk*	*Kur*
Male	179	1.90	1.20	3.10	1.99	0.33	0.69	0.90
Female	204	1.70	1.40	3.10	2.13	0.31	0.25	-0.19

The tabulated findings show that male respondents had slightly lower scores on average (*M* = 1.99, *SD* = 0.33), whilst female respondents had an average of 2.19 (*SD* = 0.31). Although male respondents had a wider range of scores, the scores for the females had a higher cut-off of 1.40 against 1.20 for males. Further probing into the statistical

significance of the differences was executed using independent samples t-test analyses and findings reported in Table 4.15.

Table 4.15

Independent Samples test for Learned Helplessness by Gender

	t	*Df*	*Sig (two-tailed)*
Learned Helplessness	-0.59	381	.553

Table 4.15 reports that there were no significant gender differences in the levels of learned helplessness, t (381) = -0.59, p >.05. This indicates that the differences in levels were lower in males and were by chance. Further, descriptions of learned helplessness by school categories were conducted, and findings were reported in Table 4.16.

Table 4.16

Descriptions of Students' Learned Helplessness Levels by School Type

School Type	*n*	Range	*Mnm*	*Mxm*	*M*	*SD*	*Sk*	*Kur*
Boys Boarding	98	1.70	1.40	3.10	1.93	0.34	1.37	2.22
Girls Boarding	84	1.40	1.45	2.85	2.06	0.31	0.49	-0.20
Coeducational D	110	1.90	1.20	3.10	2.09	0.32	0.07	0.64
Coeducational D&B	91	1.65	1.35	3.00	2.19	0.29	0.38	0.03

Note. Coeducational D = Coeducational day only schools; *Coeducational D&B* = Coeducational day and boarding schools; *n* = Sample per school strata.

Analyses of the learned helplessness levels across the four school types point out that, on average, students from coeducational day and boarding schools reported the highest levels of learned helplessness (M = 2.19, SD = 0.29), followed by those from coeducational day-only schools (M = 2.09, SD = 0.32). This was closely followed by students from girls' boarding schools (M = 2.06, SD = 0.31) and then by those from boys'

boarding schools (M = 1.93, SD = 0.34). Following the recommendations by Bono et al. (2020), the skewness and kurtosis values were within the benchmarks for a normally distributed variable. Further on, a one-way ANOVA was performed to ascertain the significance of the above-mentioned differences in learned helplessness. The findings are provided in Table 4.17.

Table 4.17

Differences in Learned Helplessness Across School Types

	Sum of Squares	*df*	Mean Squares	*F*	*Sig.*
Between Groups	3.15	3	1.05	10.29	.000
Within Groups	38.69	379	0.10		
Total	41.84	382			

As displayed in Table 4.17, there are significant mean differences in the levels of learned helplessness among the four school types, F (3,379) = 10.29, p < 000). Post Hoc analyses using the Tuckers HSD show that, particularly, Boys boarding schools varied significantly from both Coeducational day, and coeducational day and boarding schools.

The results were subsequently analysed and divided into low, moderate, and high categories. Quinless & Nelson (1988) advise that the interpretation of scores should consider the cultural norms of the target sample, and the researcher is at liberty to adapt cut-offs based on the population of the study. Therefore, scores were categorised as low, high, or medium depending on whether they fell inside or outside of one standard deviation. Table 4.18 lists the findings of the analysis.

Table 4.18

Learned Helplessness Levels

	Frequency (%)	*M*	*SD*
High	63 (16.4)	2.59	0.19
Medium	266 (69.5)	2.04	0.18
Low	54 (14.1)	1.56	0.11

Note. () = Percentages of Total

As reported in Table 4.18, Most of the respondents had moderate learned helplessness levels (69.5%). A further 16.4% of respondents exhibited high levels of Learned helplessness, while 14.1% had low levels.

4.3.3 Hypothesis Testing

To investigate the relationship between perceived parental psychological control and learned helplessness, the following supplementary hypotheses were formulated.

$H_{01.1:}$ There is no significant correlation between perceived paternal psychological control and learned helplessness.

$H_{01.2:}$ There is no significant relationship between perceived maternal psychological control and learned helplessness.

To test the hypotheses, the Pearson Product-Moment Correlation Coefficient was used in a bivariate correlation analysis. Scatter plots were generated to verify the linearity assumption, as demonstrated in Figures 4.1 and 4.2

Figure 4.1

Correlation Between Perceived Paternal Psychological Control and Learned Helplessness

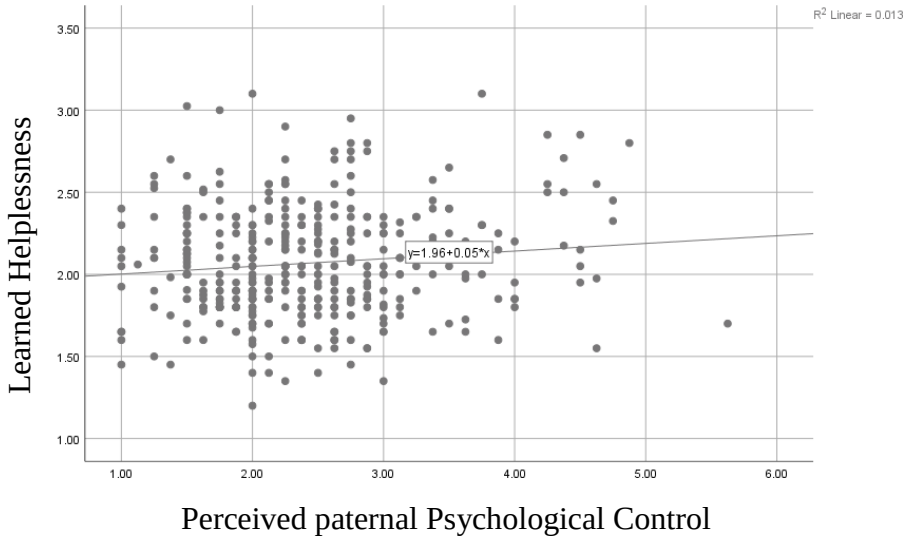
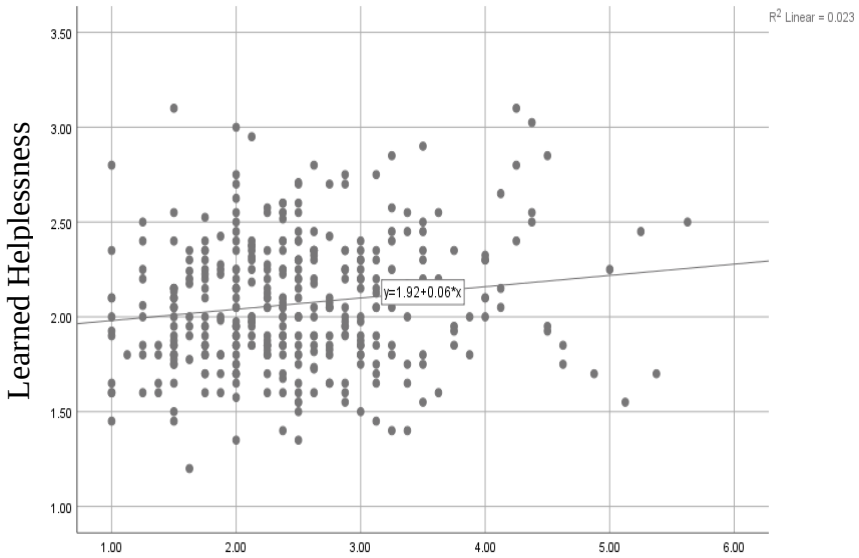


Figure 4.1 reveals that the spread of scores is evidence of a small linear relationship between students' level of perceived psychological control and learned helplessness. Following guidelines by Chicco et al. (2021) on the interpretation of the effect size, it is noted that perceived psychological control accounted for 1.3% of variance (R^2 = .013) in the students' levels of learned helplessness.

Figure 4.2

Correlation Between Perceived Maternal Psychological Control and Learned Helplessness



Similarly, the spread of scores in the scatterplot indicates that the distribution was not curvilinear; rather, a linear relationship was thus established in Figure 4.2. Further, perceived maternal psychological control accounted for 2.3% of the variability in learned helplessness.

Having met the linearity assumption, a Pearson's moment correlation coefficient test for the relationship between perceived parental psychological control and LH was performed, and the findings are presented in Table 4.19

Table 4.19

Correlation Between Parental Psychological Control and Learned Helplessness.

Learned Helplessness	*r*
Perceived Paternal Psychological Control	.11*
Perceived Maternal Psychological Control	.15**

Note. * = Correlation significant at .05 (2-tailed). ** = Correlation significant at .001(2-tailed).

The results reported in Table 4.19 indicate a rather weak positive correlation, albeit a statistically significant relationship (r (381) = .11, P < .05) between perceived psychological control and learned helplessness. The null hypothesis was therefore rejected, and thus the conclusion that there is a significant relationship between perceived psychological control and learned helplessness. Therefore, an increase in the level of a student's perceived paternal psychological control is associated with an increase in learned helplessness.

Moreover, the results indicate a weak positive but statistically significant relationship (r (381) = .15, P < .01) between perceived maternal psychological control and learned helplessness. Thus, the null hypothesis was rejected, indicating that there is a significant relationship between perceived maternal psychological control and learned helplessness.

4.3.4 Discussion of Findings

The first objective focused on the link between perceived parental psychological control and learned helplessness. The focus was on both the maternal and paternal aspects of psychological control. Descriptive analysis showed that most of the students displayed moderate levels of perceived parental psychological control as well as helplessness. There were more respondents with lower levels of both paternal and maternal control as compared to those showing higher levels. A significant weak positive relationship was established between both perceived paternal and maternal psychological control and LH. The findings imply that an increase in the students' perception of parenting control is associated with an increase in their feelings of helplessness.

The findings lend credence to the review by Yan et al. (2020) in a meta-analysis where controlling parenting was established to be associated with a myriad of internalising problems such as anxiety, disinterest and helplessness. The findings are in agreement with most reviewed studies that established that when encountered with high parental psychological control, adolescent internalising problem behaviours increased. This underlines the important role parents play in shaping adolescents' behaviours.

The findings are also backed by those of Filippello et al. (2018) among Italian adolescents, which established that elevated parental expectations lead to a sense of inadequacy, which acts as an obstacle when faced with failure. Parents who exert increased levels of psychological behavioural control may not only strengthen a student's belief that they have minimal influence over life events but also reinforce the underlying perspective that there is no point in trying to exert any control. Findings are also in line with those by Jang and Lee (2021) in a cross-sectional study in a children's sample. Whilst the current study was conducted in an equally collectivist culture, with adolescents, the study affirms the effect of maternal autonomy-control on behavioural adjustment mechanisms necessary for achievement. Psychological control results through introjection, not from the child's internal resources, but from parental control, and results in internalisation of external regulations.

Findings are also in agreement with those in Hassan (2021) among a university English preparatory programme, where helicopter maternal parenting, a parenting approach which is characterised by autonomy frustration, was established to be associated with learned helplessness. Maternal attitudes were found to be a stronger predictor of adolescent helpless behaviour than paternal parenting. Further, the current findings echo

those of Ogoma (2019) in his investigation of the prediction of learned helplessness from parental styles in the Kenyan educational context. The population characteristics between this study and the current one bear an array of similarities. In the investigation, students from autocratic settings displayed higher levels of helplessness as compared to those from democratic families.

Further on the dynamics of controlling parenting between the two parents, interestingly, the findings are consistent with those of Fillipello et al. (2017), where maternal control had a more domineering relationship with learned helplessness as compared to paternal control. This heightened emotional connection resulting from maternal attachments from an early age can intensify the impact of controlling behaviours, leading to increased psychological reactance in adolescents. Mothers are typically the primary caregivers, and controlling behaviours interfere with teenagers' autonomy, identity formation, and attainment of self-determination. It can cause emotions of captivity, pressure to meet impossible expectations, and rage as a result of frequent intrusion.

Considering that the study was based on an African and rural sample, the results are in contrast to previous findings across the individualistic versus collectivist cultural dichotomy. Cross-cultural studies indicate parental control to highly predictive of negative outcomes, and the maternal aspect is more pronounced in more individualistic cultures (Pinquirt, 2017; Dwairy & Achoui, 2010; Yan et al., 2020). It is expected that the collectivist cultural dynamics Africans hold, fathers are the comparably key source of control by demanding excessively high degrees of achievement. In collectivist cultures, where group harmony is highly valued, psychological control may be viewed as a form of guidance and care (Pomerantz & Wang, 2009; Berber, 2012). However, the

study found maternal control to be the most prevalent. Whilst some cultural aspects may make children more accepting of control, extreme controlling tendencies are associated with detrimental effects on adolescents' psychological well-being across contexts. A limitation of the current study is its correlational nature, precluding causal conclusions. Experimental or longitudinal designs are needed to establish directionality. Furthermore, the reliance on self-report measures could allow social desirability to influence responses.

The findings reinforce previous findings on the detrimental effect on adolescent functioning associated with controlling parenting. Although, to an extent, parental control has been viewed as a normative parenting practice aimed at keeping children safe in some cultures, higher degrees of control have been entirely linked to problem behaviours, including helplessness. Overall, these findings have important practical implications, highlighting the need for parenting interventions aiming to reduce controlling practices and promote autonomy-supportive behaviours to foster youth well-being. Parents should be made aware of the potential damage of excessive psychological control. With proper support, parents can learn to adopt a more democratic approach, valuing child input, modelling problem-solving, and using non-manipulative discipline (Soenens et al., 2015). Such interventions can help break intergenerational cycles of harmful parenting practices.

4.4 Relationship Between Perceived Teacher Psychological Control and Learned Helplessness

The relationship between perceptions of controlling teachers and learned helplessness was examined in the second objective. The sections that follow are the descriptive statistics on perceived teacher psychological control, and thereafter, hypothesis testing.

4.4.1 Descriptive Analysis of Students' Levels of Perceived Teacher Psychological Control

The scoring of the perceived teacher psychological control was based on the summation of the seven-item Psychologically Controlling Teaching-Student Report (PCT-SR) scale. On the five-point scale with strongly disagree (1) and strongly agree (5) as the extremes, scores were expected to range between 7 and 35. These scores were further averaged. Further, students' descriptions were analysed, and the findings are shown in Table 4.20.

Table 4.20

Descriptive Statistics for Perceived Teacher Psychological Control Scores

N	Range	*Mnm*	*Mxm*	*M*	*SD*	*Sk*	*Kur*
383	3.29	1.29	4.57	2.95	0.64	0.10	-0.29

Table 4.20 indicates that the scores span between 1.29 to 4.57 with a range of 3.29. The average of the respondents' scores was 2.95 (*SD* = 0.64). The distribution had a positive skew (*Sk* = 0.10), and, combined with the kurtosis values (*Kur* = -0.29), the distribution was well within the benchmarks for reasonably normal distribution as per the Tabachnick and Fidell (2019) recommendations for a normal distribution.

Further, the students' perceptions of controlling teaching were described across the gender divide. The findings are presented in Table 4.21.

Table 4.21

Perceived Teacher Psychological Control Scores by Gender

Gender	*N*	Range	*Mnm*	*Mxm*	*M*	*SD*	*Sk*	*Kur*
Male	179	3.29	1.29	4.57	2.88	0.63	0.85	0.17
Female	204	3.00	1.57	4.57	3.01	0.64	0.11	-0.66

Note. n = Sample per gender.

Table 4.21 shows that females had higher mean scores, $M = 3.01$; $SD = 0.64$, while male students had a mean of 2.88 ($SD = 0.63$). The variable distribution had a more or less similar dispersion of scores for both genders. To ascertain the significance of these mean differences across the two genders, an independent samples t-test was executed. The findings are reported in Table 4.22.

Table 4.22

Gender Differences in Perceived Teacher Psychological Control

	t	*Df*	*Sig (two-tailed)*
Perceived Teacher Psychological Control	-1.92	381	.055

As shown, there were no significant mean differences in the reported levels of perceived teacher psychological control between male and female respondents, $t\ (381) = -1.92$, $p > 0.5$. It was also imperative to understand the differences in the perceived levels of teacher psychological control across the school types. Therefore, students' descriptions were analysed per school type and presented in Table 4.23.

Table 4.23

Descriptives for Perceived Teacher Psychological Control Across School Types

School Type	*n*	Range	*Mnm*	*Mxm*	*M*	*SD*	*Sk*	*Kur*
Boys Boarding	98	3.29	1.29	4.57	2.90	0.62	0.14	0.39
Girls Boarding	84	3.00	1.59	4.57	3.01	0.70	0.78	-0.89
Coeducational D	110	3.14	1.29	4.43	2.86	0.67	-0.18	-0.25
Coeducational D&B	91	2.45	1.98	4.43	2.93	0.55	0.55	-0.30

Note. Coeducational D = Coeducational day only schools; *Coeducational D&B* = Coeducational day and boarding schools; *n* = Sample per school strata

Table 4.23 indicates that respondents from girls' boarding schools recorded the highest levels of perceived teacher psychological control (M = 3.01, SD = 0.70). These were followed by those from coeducational day and boarding schools (M = 2.93, SD = 0.55), then by boys-only boarding schools (M = 2.90, SD = 0.62). The Coeducational day schools recorded the lowest levels of controlling teaching (M = 2.86, SD = 0.67). The boys boarding respondents had the largest range of scores, whilst the coeducational day and boarding section had the least variability in scores. To further understand the significance of these findings, an ANOVA test was conducted. The Findings are reported in Table 4.24.

Table 4.24

Mean Differences in Perceived Teacher Psychological Control

	Sum of Squares	*df*	Mean Squares	*F*	*Sig.*
Between Groups	0.70	3	0.23	0.57	.634
Within Groups	154.97	379	0.41		
Total	155.67	382			

Table 4.24 reveals that the differences in perceived teacher psychological control by the type of school were not significant, F (3,379) = 0.57, p > 0.63. For purposes of comparison, scores were grouped into low, medium and high levels. A score of 1.92

was considered median, and scores one standard deviation below and above the score were considered as low and high levels of perceived teacher psychological control, respectively. Table 4.25 outlines the findings.

Table 4.25

Respondents' Perceived Teacher Psychological Control Levels

	Frequency (%)	*M*	*SD*
High	53 (13.8)	4.01	0.23
Medium	257 (67.1)	2.98	0.35
Low	73 (19.1)	2.07	0.26

Note. $N = 383$

From the data in Table 4.25, more than two-thirds (67.1%) of the respondents had moderate levels of perceived teacher psychological control, with a mean of 4.01 (*SD* = .23). A further 19.1% had low levels, whilst 13.8% had high levels.

4.4.2 Hypothesis Testing

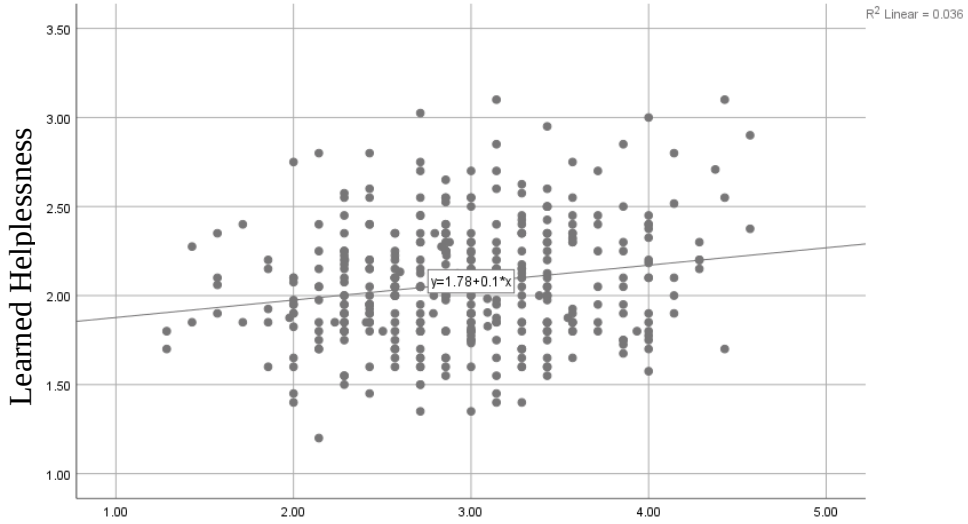
In testing the relationship between perceived teacher psychological control and learned helplessness, the following hypothesis was tested.

H_{02}: There is no significant relationship between teacher psychological control and learned helplessness.

The Pearson Product-Moment Correlation Coefficient test was employed on this hypothesis. As illustrated in Figure 4.2, a scatter plot was used to graphically ascertain the linearity assumption prior to the analysis.

Figure 4.3

Correlation Between Perceived Teacher Psychological and Learned Helplessness



A visual inspection of Figure 4.3 indicates that the points follow a linear pattern and therefore show that the data supports the linearity assumption. In line with the guidelines by Xu et al. (2022) on interpreting effect size, it was established that perceived teacher psychological control accounted for a small proportion of variability *(r^2*=3.6%) in the students' levels of learned helplessness.

Thereafter, a bivariate correlation test using the Pearson Product-Moment Correlation Coefficient was conducted. Findings are depicted in Table 4.26.

Table 4.26

Correlation Between Perceived Teacher Psychological Control and Learned Helplessness.

	Learned Helplessness
Perceived Teacher Psychological Control	.19***

Note. *** = Correlation significant at .001 level (2-tailed)

Table 4.26 indicates that there was a weak, positive and statistically significant relationship (r (381) = .19, P < .001) between perceived teacher psychological control

and learned helplessness. The null hypothesis was therefore rejected, and there was a conclusion that there is a significant relationship between perceived teacher psychological control and learned helplessness. From the foregoing, an increase in the level of teacher psychological control is associated with an increase in learned helplessness.

4.4.3 Discussion of the Findings

The study's second objective investigated the relationship between perceived teacher psychological control and learned helplessness. Descriptives indicated that the respondents' mean scores on perceived teacher psychological control were negatively skewed, with the majority lying above the mean score. These self-reports imply higher perceived levels of teacher control in the sample. The descriptive findings were backed by the inferential statistics, which found a significant positive relationship between perceived teacher psychological control and learned helplessness.

Teacher control has received little attention in the educational context. The current study lends credence to earlier findings on the negative psychological outcomes associated with parental psychological control (Filippello et al., 2018; Jang & Lee, 2020; Yan et al., 2020). Literature has established psychological control as a multifaceted and complex subject. For instance, studies on maternal and paternal psychological control have been linked to an increase in problem behaviours and decreased psychological functioning among adolescents (Fillipello et al., 2015; 2017; 2018; Hassan, 2021; Jang & Lee, 2021; Romm, 2020). This suggests that teacher psychological control could potentially lead to similar outcomes, especially as adolescents, where they have more significant interactions with teachers.

The established findings are further backed by those of Fillipello et al. (2017). The study conducted on an urban adolescent sample established a positive relationship between perceived teacher psychological control and LH. Despite the evident differences in sample characteristics, tit is established that the conditional regard associated with teacher psychological control conveys to the student that they are not successful in meeting the teacher's expectations. The critical tone in controlling the teachers thwarts the development of independent views that may induce feelings of helplessness.

The findings are also consistent with those by Fillipello et al. (2019) on teacher psychological control and the mechanism for school refusal. The study established that controlling teachers impose an external control, make learners perceive inability and feel excluded, which significantly frustrates the psychological needs of adolescents, which resultantly translates into problematic behaviour such as school refusal as well as decreased scholarly attainment. Further, these expositions are backed by those in Sorrenti et al. (2021). It was established that exposure to chronic levels of controlling teachers induces pressure among learners that they do not have control over events in their lives. These resultantly foster a sense of uncontrollability that is associated with decreased performance in schools.

Similarly, an antithetical line of literature aligns with the current findings and outlines the positives associated with autonomy-supportive behaviours to young learners. Specifically, teacher autonomy support has been associated with resilience in the face of failure, better performance, self-initiated and controlled learning and increased data processing (Ma, 2021). Moreover, perceived teacher autonomy support has been linked

to incremental outcomes such as intellectual risk-taking behaviour and better motivation (Tan et al., 2023).

However, it's important to consider the cultural context in which these interactions occur. In Kenya, teachers are key socialisation agents for adolescents. (Akuma, 2015; Yan et al., 2020). Schools in Kenya have been established to adopt performance-oriented practices that impose pressures on the teachers to give better performance (Romm, 2020; Sakina, 2020). These pressures from parents and the school administration may impel teachers to adopt controlling practices at the detriment of the learner. Teachers who feel supported are likely to experience less frustration and burnout, which could potentially influence their use of psychological control.

Considering the extended amount of time they spend with students, especially in boarding schools, they play a notable role in moulding students' behaviours and attitudes. Therefore, their use of psychological control could have a profound impact on students' development. Studies that incorporated both parental and teacher control (Fillipello et al., 2017; Sorrenti et al., 2020) show perceived teacher psychological control to be closely linked with negative outcomes among adolescents as compared to perceived parental control. Whilst parents continue to be prominent agents for socialisation, peers and teachers have a more competing influence. The desire for autonomy is a critical aspect of adolescent development (Fleming, 2020). Adolescents are at a stage where they are striving for independence and self-governance. Therefore, teacher psychological control, which can be perceived as a threat to this autonomy, could potentially lead to negative outcomes such as learned helplessness.

The findings of this study are, however, inconsistent with those of Park and Ramirez (2022) and Romm et al. (2022), which yielded non-significant findings between psychological control and problematic outcomes. This points towards the multifaceted nature of the relations between controlling teachers and problematic outcomes. It involves understanding the dynamics of teacher-student interactions, the cultural context in which these interactions occur, and the impact of these factors on student outcomes.

Confirming the hypothesis could lend support for self-determination, attachment, and stage-environment fit theories regarding the frustration of autonomy needs. Practically, results would emphasise incorporating autonomy support into teacher training and school policies. Further explorations into mediators and moderators, like cultural values, qualitative data, observing classrooms, and expanding outcomes and timeframes, are needed. Overall, perceived teacher psychological control undermines the autonomy of behaviour rather than motivating learners to meet the expectations set out. Teacher psychological control resulting from demand for higher expectations goes further to undermine the goal and, as a result, works against the perceived ability and controllability of outcomes learners hold.

4.5 The Mediation Role of Mindsets on the Relationship Between Perceived Psychological Control and Learned Helplessness

The third and fourth hypotheses sought to determine whether the mindsets students held mediated the relationships between paternal, maternal and teacher psychological control, and learned helplessness. In this section, descriptive analysis, correlations and Cronbach's alpha were first carried out, and later the measurement model was assessed.

The proposed model of constructs is hypothesised would suit the data: That the structural covariance matrix is equal to the actual covariance matrix.

Full structural equation modelling was used to establish relationships among the variables. Hair et al. (2010) outline that SEM is a robust statistical technique choice for the investigation of complex theoretical relationships between constructs, whilst at the same time accounting for measurement error. To assess the data fit, a measurement model assessing the validity and composite reliability of the constructs was first performed.

4.5.1 Descriptive Statistics, Internal Reliability and Correlations

Mindsets were measured using the 8-item implicit theories of intelligence scale developed by Dweck and Molden (2000). The level of psychological control was operationalised as the summated score of the six-point Likert scale ranging from *strongly agree* (1) to *strongly disagree* (6). Scores were expected to range from 8 to 42. An acceptable reliability of $\alpha = .71$ was established on the measured sample. The average score of the items was established, and mean, standard deviation, skewness and kurtosis were calculated, and the findings are shown in Table 4.27.

Table 4.27

Descriptive Statistic for Mindsets Scores

N	Range	*Mnm*	*Mxm*	*M*	*SD*	*Sk*	*Kur*
383	4.5	1.18	5.88	4.08	0.86	-0.47	-0.26

The scores on mindsets ranged from 1.18 to 5.88 with a range of 4.50. The mean academic mindset score was 4.08 (*SD* = 0.86) with a relatively small deviation in relation to the mean. The distribution had a slightly negatively skewed distribution, although well within the allowable benchmarks for a relatively normally distributed sample (Skewness

= 0.86; Kurtosis = 0.26). Moreover, the descriptions of students' scores per gender were analyzed. The findings are displayed in Table 4.28.

Table 4.28

Students' Descriptions of Mindsets per Gender

Gender	*N*	Range	*Mnm*	*Mxm*	*M*	*SD*	*Sk*	*Kur*
Male	179	4.13	1.63	5.75	4.11	0.90	-0.52	-0.47
Female	204	4.50	1.38	5.88	4.04	0.82	-0.43	0.02

Note. n = Sample per gender

From Table 4.28, it is evident that female respondents had the largest spread of scores (Range = 4.50), with an albeit lower Standard deviation than male respondents (Range = 4.13). On average boys (*M* = 4.11, *SD* = 0.90) had higher mindsets scores as compared to girls (*M* = 4.04, *SD* = 0.82). The distribution of scores, although reasonably normal, had a slight negative skew in both genders indicating that most of the self-reports were above the mean. To ascertain the significance of the differences, an independent Samples t-test was undertaken. The findings are displayed in Table 4.29.

Table 4.29

Gender Differences in Mindsets

	t	*Df*	*Sig (two-tailed)*
Perceived Teacher Psychological Control	0.76	381	.446

Findings in Table 4.29 reveal that, although there were mean differences in mindsets between male and female respondents, these differences were not significant, t (381) = 0.76, $p > 0.05$. Additionally, mindsets scores were analyzed across the four school types and their descriptions are presented in Table 4.30.

Table 4.30

Descriptive statistics on Mindsets Across School Types

School Type	*n*	Range	*Mnm*	*Mxm*	*M*	*SD*	*Sk*	*Kur*
Boys Boarding	98	3.75	2.00	5.75	4.08	0.92	-0.34	-0.80
Girls Boarding	84	3.50	2.13	5.63	4.05	0.84	-0.26	-0.61
Coeducational D	110	4.50	1.38	5.88	4.15	0.88	-1.00	-0.94
Coeducational D&B	91	3.75	1.88	5.63	4.00	0.81	-0.16	-0.33

Note. Coeducational D = Coeducational day-only schools; *Coeducational D&B* = Coeducational day and boarding schools; *n* = Sample per school strata

Table 4.29 indicates that respondents from coeducational day schools had the highest scores on average (M = 4.15, SD = 0.88) followed by boys-only boarding schools (M = 4.08, SD = 0.92) which had the largest variation from the mean. These were closed followed by girls-only boarding schools (M = 4.05, SD = 0.84) and lastly coeducational day and boarding schools (M = 4.00, SD = 0.81). To gain more insight into the statistical significance of these mean differences among the schools, a one-way ANOVA was implemented. The findings are displayed in Table 4.31

Table 4.31

Differences in Mindsets with School Type

	Sum of Squares	*df*	Mean Squares	*F*	*Sig.*
Between Groups	1.26	3	0.42	10.29	.642
Within Groups	284.52	379	0.75		
Total	285.79	382			

As tabulated in Table 4.31, analysis of variance of the mean differences in mindsets with the school types revealed that there were no significant differences, F (3,379) = 10.29, $p > 0.05$.

For purposes of comparison, scores were grouped into low, medium and high. This was based on the criteria recommended in Rand Education and Labor (2018) where scores between 3.3 and 3.7 comprise the borderline (medium scores and any scores below and

above these are considered low and high levels of incremental mindsets respectively. Table 4.32 outlines the findings.

Table 4.32

Respondents' Mindsets Levels

	Frequency (%)	*M*	*SD*
High	81(21.1)	5.22	0.21
Medium	237(61.9)	4.09	0.50
Low	73(17.0)	2.61	0.48

Note. N = 383 *()* = Percentages per level

From the table, most of the respondents had a medium level of mindsets (*M* = 4.09; *SD* = 0.50). These were followed by those with high levels of academic mindsets (*M* = 5.22; *SD* = 0.21). A further 17% had lower levels of mindsets (*M* = 2.61; *SD* = 0.48). Overall, descriptive analyses, internal consistency and correlations across the constructs were examined and findings reported on Table 4.33.

Table 4.33

Descriptive statistics, correlations and Cronbach's Alphas

	M	*SD*	*SK*	*Kur*	α	1	2	3	4	5
1. PPPC	2.42	0.80	0.86	0.95	.69					
2. PMPC	2.47	0.84	0.84	0.96	.74	.50**				
3. PTPC	2.95	0.64	0.10	-0.29	.70	.17**	.17**			
4. Mindsets	4.08	0.91	-0.50	-0.27	.73	-.14**	-.13**	-.08		
5. LH	2.07	0.33	0.41	0.13	.67	.11*	.15**	.19**	-20**	

Note: * = Sig at .05 (two-tailed); ** = Sig at .05 (two-tailed); *PPPC* = Perceived Paternal Psychological Control; *PMPC* = Perceived Maternal Psychological Control; *PTPC*= Perceived Teacher Psychological Control; *LH* = Learned Helplessness.

Table 4.33 indicates that skewness and kurtosis values ranged between ± 1 and ±10 respectively suggesting data normality as per recommendations by Bono et al. (2020). Cronbach alpha values ranged from .67 to .74, which were acceptable based on the suggested cut-off point of .70 (Barbera et al., 2020). To check for possible multicollinearity, a correlation matrix was developed. It is noted that save for the relationship between perceived paternal and maternal psychological control ($r = .50^{**}$), all other relationships had weak relationships ranging from r =-.2.6 to .19. This indicates a low possibility of multicollinearity among the variables.

4.5.2. Measurement Model

To assess the quality criteria of the constructs; a measurement model was tested using the SPSS AMOS Version 26 procedurally; where the model fit and, factor reliability and convergent validity were tested (Collier, 2020). Before undertaking these, the indicators were collapsed into parcels. Parcelling reduces the number of observed indicators, which helps stabilize the model estimation by reducing the number of estimated parameters (Little et al., 2013). Parcelling was based on random assignment of items for each construct and assumed the unidimensional of the indicators in capturing a construct.

As part of the Confirmatory Factor Analysis, a first-order model confirmatory factor analysis was conducted using all constructs in the study. Factor loadings were assessed for each item. Collier (2020) stipulates the minimum allowable benchmarks for factor loadings as .5 or higher; composite reliability as .7 and higher and the average variance extracted (AVE) as .5 or higher. The majority of the indicators' factor loadings were above the suggested threshold of .50 while few failed to meet the requirement. Whilst it is common practice to delete indicators that load poorly to a construct, Collier (2020)

discourages this basing the argument that weak indicators could very well be capturing a unique component of the construct. These items were thus retained.

The first-order CFA model was carried out to assess the fitness of the data. Values of .05 and .10 or less are considered an acceptable fit for the Root Mean Squared Error of Approximation (RMSEA) and the Standardized Root Mean Squared Residual (SRMR) respectively. For the common relative fit indices, such as the Tucker-Lewis index (TLI) and the Comparative Fit Index (CFI), values greater than 0.90 would be seen as favourable (Hu & Bentler, 1998). The five-factor model yielded a good fit for the data; CMIN/DF = 1.813; RMSEA= .046; SRMR = .05 CFI .92; TLI= .90. Further, factor reliability and convergent validity were examined. The guidelines offered by Hair et al. (2021) suggest a composite reliability of 0.7 or greater and an average variance extracted (AVE) of 0.5 as the modest values applicable. Table 4.34 shows the respective factor reliability and convergent validity values.

Table 4.34

Factor Reliability and Convergent Validity for the Scales

	Composite Reliability	Average Variance Extracted
Perceived Paternal Psychological Control	0.72	0.40
Perceived Maternal Psychological Control	0.74	0.41
Perceived Teacher Psychological Control	0.61	0.36
Mindsets	0.71	0.39
Learned Helplessness	0.67	0.34

As noted in Table 4.34, all the scales met the above-mentioned criteria for factor reliability but not for convergent validity. Fornell and Larcker (1981) argue that convergent validity is considered adequate if AVE is less than 0.5 but factor reliability is higher than 0.6.

After the factor reliability and convergent validity were established, the examination of discriminant validity was estimated. Cheung et al. (2023) offer guidelines on the Heterotrait Monotrait (HTMT) ratio, with values below .90 considered acceptable. Findings on the HTMT ratios between the variables are presented in Table 4.35.

Table 4.35

HTMT Ratios

Scale	1	2	3	4
1. Perceived Paternal Psychological Control				
2. Perceived Maternal Psychological Control	0.28			
3. Perceived Teacher Psychological Control	0.08	0.08		
4. Mindsets	-0.07	-0.08	-0.05	
5. Learned Helplessness	0.06	0.09	0.10	-0.11

Table 4.35 shows that all HTMT ratios fell below the recommended value of .9, indicating that there is adequate discriminant validity among the constructs.

Having established the factor reliability, convergent validity and confirmatory factor analysis, and the measurement model demonstrating a good fit, the study proceeded to the structural model testing.

4.5.3 Hypothesis Testing

In the exploration of the mediation role of Mindsets in the relationships between perceived parental and teacher psychological control and learned helplessness, the following supplementary hypotheses guided the structural modelling of the study.

$H_{03.1:}$ Mindsets do not significantly mediate the relationship between perceived paternal psychological control and learned helplessness.

$H_{03.2:}$ Mindsets do not significantly mediate the relationship between perceived maternal psychological control and learned helplessness.

$H_{04:}$ Mindsets do not have a significant mediation role in the relationship between perceived teacher psychological control and learned helplessness.

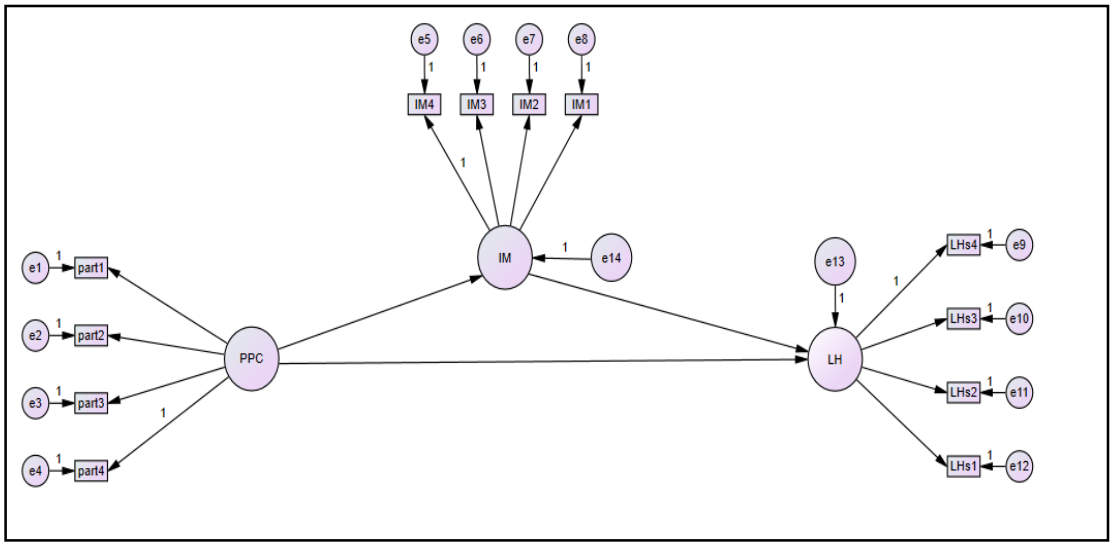
A full structural model assessing the individual relationships among the variables was executed to explore the mediation of mindsets in the relationships. Mediation assesses whether a third variable influences the relationship between two constructs. Building on changes in mediation testing, the study used the bootstrapping technique (Cheung et al., 2023). Based on the framework proposed by MacKinnon and colleagues, resampling replicates data sets, facilitating assumption-free testing, bias-corrected confidence intervals, and enhanced statistical power, particularly in cases with small samples or sophisticated models (MacKinnon et al., 2004, as Cited in Cheung et al., 2023).

4.5.4 Mindsets Mediate the Relationship Between Perceived Paternal Psychological Control and Learned Helplessness

The research model, as depicted in Figure 4.4, was designed to investigate the mediating role of mindsets. In line with Hoffman et al.' (2021) recommendations, a bootstrapping method with 5000 resamples was employed to ensure robustness of the results.

Figure 4.4

Hypothesized Paternal Mediation Model



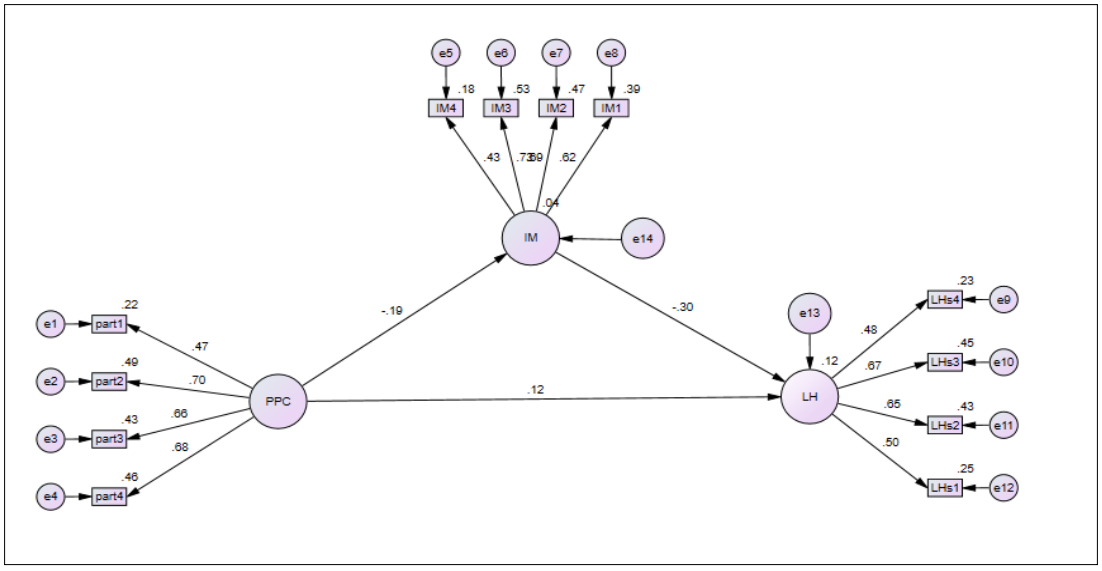
Note. Part1–4 = Perceived Paternal Psychological Control Indicators; *IM 1-4* = Mindsets Indicators, *LH 1-4* = Learned Helplessness indicators

Prior to testing the model, its goodness of fit was evaluated using several indices. For the Root Mean Square Error of Approximation (RMSEA), values less than .05 indicate a good fit, while for the Standardised Root Mean Square Residual (SRMR), values less than .10 are considered acceptable. Additionally, for relative fit indices such as the Tucker-Lewis Index (TLI) and the Comparative Fit Index (CFI), values greater than 0.90 are deemed favourable.

Modification indices were scrutinized, but no logically correlated error terms that could enhance the model fit were identified. The model demonstrated a satisfactory fit to the data, with CMIN/DF =1.20, SRMR = .034, TLI= .99, CFI= .99, and GFI= .98. Upon confirming the model's goodness of fit, it was advanced to the testing phase. The estimates derived from the model are illustrated in Figure 4.5.

Figure 4.5

Model for the Relationship Between Paternal Control and LH Through Mindsets



Note. Part 1-4 =Perceived Paternal Psychological Control Items; *IM1-4* =Mindsets Items; *LHa1-4* = Learned Helplessness Items: *LH* = Learned Helplessness; *PPC*= Perceived Paternal Psychological Control; *IM* = Mindsets

Product coefficients were investigated to establish the presence and significance of a mediating effect based on a 95% bootstrap and a bias-corrected bootstrap interval. Findings on the same are reported in Table 4.36.

Table 4.36

Findings on Mediation of Mindsets in the Relationship Between Controlling Parenting and LH

Relationship	Direct Effects	Indirect Effects	Confidence Interval		P-Value	Conclusion
Perceived PPC -> Mindsets-> LH	B = .12, p = .09	β = .06	Lower Bound .021	Upper Bound .114	.006	A competitive Full Mediation was established.

Table 4.36 shows direct effects between Perceived paternal psychological control and learned helplessness were established as non-significant (β = .12, p = .09). Paternal

control was significantly related to mindsets (β =-.19, P < .01): In turn mindsets were significantly and negatively related to LH (β = .30, p = .01). Further, from the examination of direct and indirect effects, it was established that there was a significant indirect effect of perceived paternal psychological control and learned helplessness through mindsets (β = .06, p < .01). From the findings, it was established that Mindsets fully mediated the relationship between perceived paternal psychological control and learned helplessness. Thus, the null hypothesis was rejected and it was concluded that mindsets significantly mediated the relationship between perceived paternal psychological control and learned helplessness. The mindsets students hold fully account for the relationship between perceived paternal psychological control and LH. The direct relationship between the two becomes substantially non-significant with the introduction of mindsets.

4.5.5 Discussion of the Findings

The study's third objective sought to explore the mediation of mindsets in the relationship between perceived parental psychological control and learned helplessness. This section will be limited to the paternal psychological control aspect. Descriptive analysis established that most respondents had medium and high incremental mindsets.

It was established that paternal psychological control negatively predicts mindsets that resultantly negatively predict learned helplessness. Moreover, a significant indirect effect of paternal control in the relationship between paternal psychological control and learned helplessness, highlighting the centrality of mindsets. Mediation analyses established a full mediation of mindsets in the relationship between paternal

psychological control and learned helplessness. With the mediation path, the relationship between perceived paternal psychological control and learned helplessness ceased to be significant. These points that perceived paternal psychological control might influence the development of incremental mindsets, which in turn affects learned helplessness.

The relationship between paternal psychological control and mindsets lends credence to an earlier study by Gao et al. (2020) on the negative effect of controlling parenting on the mindsets students hold. In an effort to please the parents, students with fixed mindsets at the expense of their personal needs resulted in increased internalized distress and stunted academic performance. Controlling fathers undermines perceptions of control among adolescents and resultantly may reinforce beliefs of intelligence as unchanging.

The findings are also in congruence with those by Schiffrin et al. (2019) where overly controlling and perfectionism-seeking tendencies from parents were established to be negatively related to students' mindsets. Controlling parents were argued to observe controlling performance-oriented behaviours rather than learning orientation. These pressuring behaviours devised to prevent failure in academic tasks prove counterproductive as they transmit a message to the child that failure is intolerable and, resultantly, fixed mindsets. The manipulative nature of psychological control diminishes self-regulation skills in the learners. By hindering the cultivation of self-regulation skills, psychological control could make children more dependent on external contingencies. This communicates to the students that they are ineffective in meeting their parents' expectations and forms in them a view that their ability is not

changeable. Interestingly, the study's findings are in contrast with those by Ma et al. (2021), where parental autonomy support did not predict students' mindsets.

The link between mindsets and learned helplessness from prior studies shows support for the current study's findings (Smiley et al., 2016; Ziegler et al., 2021). The mindsets framework provides a meaning system, where effort attribution was linked to the post-failure intention to plan a remedial plan. This suggests that students with incremental mindsets who attribute failure to a lack of effort are more likely to take a remedial plan after being faced with failure-inducing situations. Conversely, those with fixed mindsets are more likely to be withdrawn after failure.

Furthermore, the study underscores the influence of paternal control in fostering learned helplessness, as documented in studies by Fillipello et al. (2018), Fillipello et al. (2017), Yan et al. (2020). It also introduces an underlying mechanism that connects these variables. Specifically, fathers exhibiting psychologically controlling behaviours may inadvertently strengthen an adolescent's perception of non-contingency of outcomes, leading them to believe they have minimal control over their academic pursuits. This not only reinforces fixed mindsets, where students believe their abilities in executing tasks are unchangeable but also fosters a sense of futility in making efforts to improve.

To this end, when faced with failure-inducing events in their lives, these adolescents are more predisposed to give up and have accompanying beliefs of uncontrollability, incompetence and feelings of inability to independently perform assigned tasks (Fillipello et al., 2018).

The study unveils the pivotal role of mindsets in mediating the relationship between paternal psychological control and learned helplessness among adolescents. The findings corroborate the deleterious impact of controlling parental practices on the cultivation of incremental mindsets, consequently engendering a perception of uncontrollability and learned helplessness. This holds profound theoretical ramifications, reinforcing the tenets of mindset theory and exposing the mechanisms underpinning learned helplessness. Pragmatically, it highlights the exigency of parental interventions, mindset-based educational initiatives, counselling services, and awareness campaigns to foster adaptive mindsets, mitigate psychological control, and preempt the onset of learned helplessness, thereby optimising adolescent psychological well-being and academic trajectories.

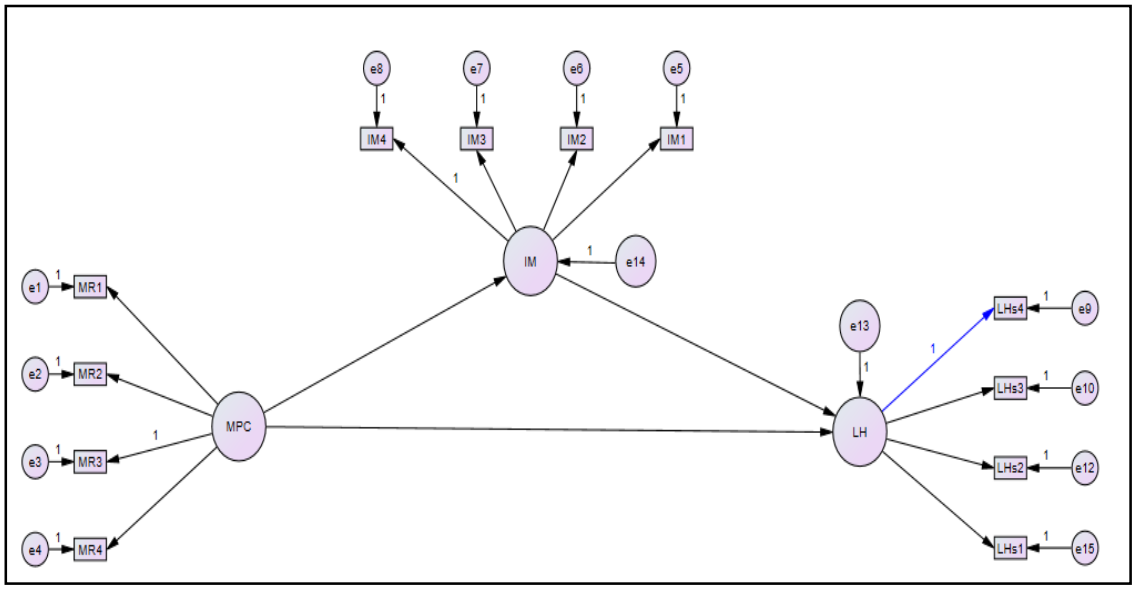
In conclusion, the findings confirm the decremental link between autonomy frustration towards learned helplessness and the potential intervention point, the mindsets. This suggests that autonomy-supportive parents can contribute to adolescents' growth mindsets, which may act as a buffer for feelings of helplessness after repeated failure experiences. By promoting parenting styles that foster autonomy and mindsets, it may be possible to mitigate the negative effects of psychological control.

4.5.6 Mindsets Mediate the Relationship Between Perceived Maternal Psychological Control and Learned Helplessness.

Moreover, this study aimed to investigate the mediating role of mindsets in the relationship between perceived maternal psychological control and learned helplessness. The model illustrated in Figure 4.6 was proposed to elucidate this mediation.

Figure 4.6

Model for the Relationship Between Maternal Control and LH Through Mindsets



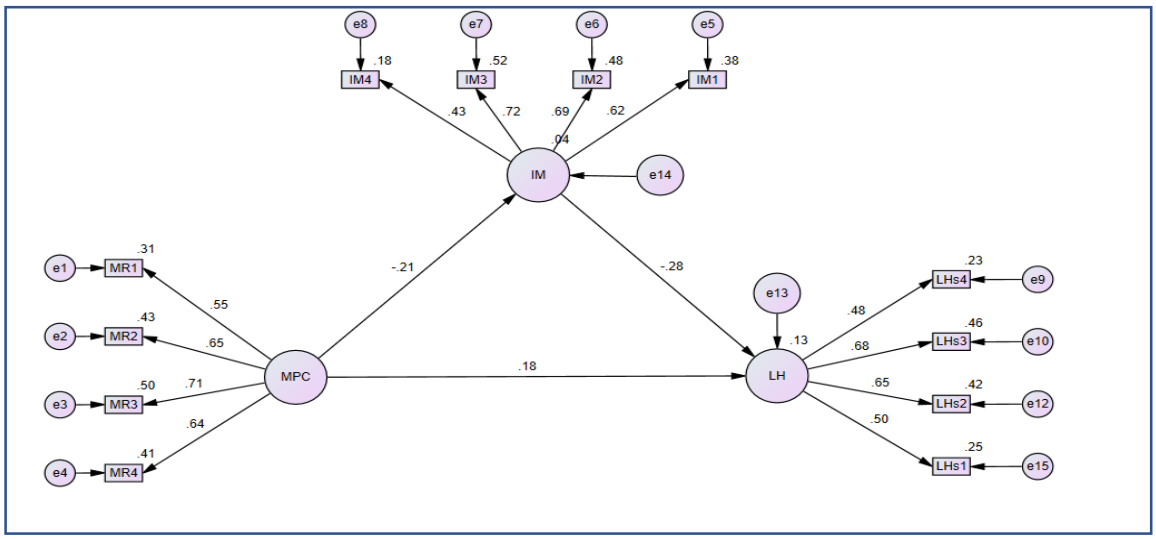
Note. Part 1-4 =Perceived Maternal Psychological Control Items; *IM1-4* = Mindsets Items; *LHa1-4* = Learned Helplessness Items; *LH* = Learned Helplessness; *PMC* = Perceived Maternal Psychological Control; *IM* = Mindsets

To evaluate the fit of the data to the proposed model, a Confirmatory Factor Analysis (CFA) was conducted. The model demonstrated a satisfactory fit to the data, with CMIN/DF =1.50, SRMR = .040, TLI= .96, CFI= .97, and GFI= .97, which are above the acceptable model fit statistics.

Subsequently, a structural model was tested to examine the relationships based on a 95% bootstrap and a bias-corrected bootstrap confidence interval. This approach provides robust estimates of the relationships by accounting for potential bias in the sample. The estimates derived from this model are illustrated in Figure 4.7.

Figure 4.7

Mediation Model on the Relationship between Maternal Control and LH



Note. MR1-4 = Perceived Maternal Psychological Control Items; *IM1-4* = Mindsets Items; *LHa1-4* = Learned Helplessness Items: *LH* = Learned Helplessness; *MPC* = Perceived Maternal Psychological Control; *IM* = Mindsets

Findings on the significance of paths and mediation were analysed and reported in

Table 4.37.

Table 4.37

Findings on Mediation of Mindsets in the Relationship Between Controlling Parenting and LH

Relationship	Direct Effects	Indirect Effects	Confidence Interval		P-Value	Conclusion
			Lower Bound	Upper Bound		
Perceived MPC-> Mindsets-> LH	β = .18, p = .01	β = .06	.015	.133	.006	A competitive Partial Mediation was established.

Table 4.17 reports the findings on the mediation role of mindsets in the relationship between perceived maternal psychological control and learned helplessness. The estimates for the direct path between maternal psychological control and learned helplessness was positive and significant (β = .18, p < .05). Moreover, the combined indirect effects of perceived maternal psychological control to learned helplessness through mindsets were established to be significant (β = .06, p < .01). Considering that the indirect effects are significant and negative, as of the direct effects, it is therefore concluded that there was a competitive partial mediation of mindsets in the relationships. The statistically significant direct effects indicate that the relationship between perceived maternal psychological control was only marginally stronger when student mindsets were high. Specifically, students with reported high incremental mindsets exhibit lower levels of learned helplessness resulting from controlling parenting.

4.5.7 Discussion of the Findings

The research aimed to explore the mediating role of mindsets in the relationship between perceived maternal psychological control and learned helplessness. The findings indicated that perceived maternal psychological control has a negative impact on mindsets, which subsequently negatively influences learned helplessness. Mindsets were found to partially mediate this relationship. Moreover, a significant indirect effect of mindsets on the relationship between perceived maternal psychological control and learned helplessness was established, underscoring the pivotal mediating role of mindsets.

As anticipated, the indirect path between perceived maternal psychological control and mindsets was negative and significant. These findings align with previous literature on maternal control and adolescent problem behaviours. Psychological Control interferes with autonomy-related processes in adolescence and hurts adolescents' development related to internalising and externalising problems (Gao et al., 2020; Sheffler & Cheung, 2022). Maternal control has been viewed to undermine perceptions of control and competence among learners and, as such, may reinforce beliefs of intelligence as unchanging. Conversely, supportive parental practices play a key role in nurturing malleable mindsets in children (Kapasi & Pei, 2020).

The findings are also in congruence with those by Verena et al. (2019). The study proposed a reward-based framework for studying perceived control. The study argued that key properties of perceived control, including choice opportunity, instrumental contingency, and success/reward rate, are integral to fostering an enhanced perception of control and influencing an individual's behaviour and well-being. This suggests that when children perceive their parents as controlling, it can lead to a negative mindset, particularly if they feel they have no control over situations or events. In line with the findings of Filippello et al. (2015; 2017; 2018), the study provides support for the role of maternal psychological control in the development of learned helplessness and goes further to suggest a possible intervention point: mindsets. Therefore, autonomy-frustrating behaviour may communicate a lack of ability in adolescents, and such students may exhibit feelings of uncontrollability in the face of challenges since they have been reinforced to attribute failure to lack of ability rather than a lack of effort.

The study's findings fortify the mindset theory by illuminating how environmental factors like parenting styles shape mindsets and their subsequent impact on learned helplessness. It expands our comprehension of maternal psychological control on mindsets and learned helplessness. The study puts primacy on parenting interventions promoting autonomy-supportive practices, mindset-based educational initiatives, and counselling services fostering growth mindsets, which hold the potential for optimising adolescent psychological well-being and resilience through targeted, evidence-based interventions rooted in cultivating adaptive mindsets.

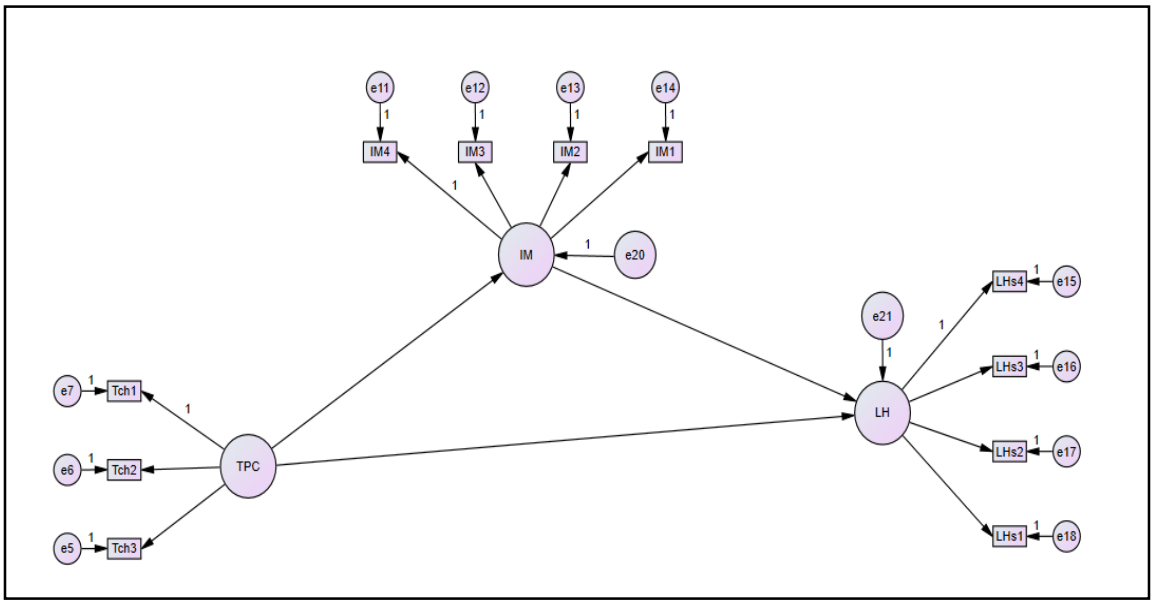
In conclusion, this study contributes to our understanding of the complex dynamics between perceived maternal psychological control, mindsets, and learned helplessness. It highlights the importance of fostering positive mindsets as a potential intervention strategy to mitigate the negative effects of perceived maternal psychological control on learned helplessness.

4.5.8 Mindsets Mediate the Relationship Between Perceived Maternal Psychological Control and Learned Helplessness.

The fourth objective sought to explore the mediation of mindsets in the relationship between controlling teaching and LH. The following model was formulated as shown in Figure 4.8.

Figure 4.8

Hypothesized Mediation Model for Teacher Control to Learned Helplessness Through Mindsets

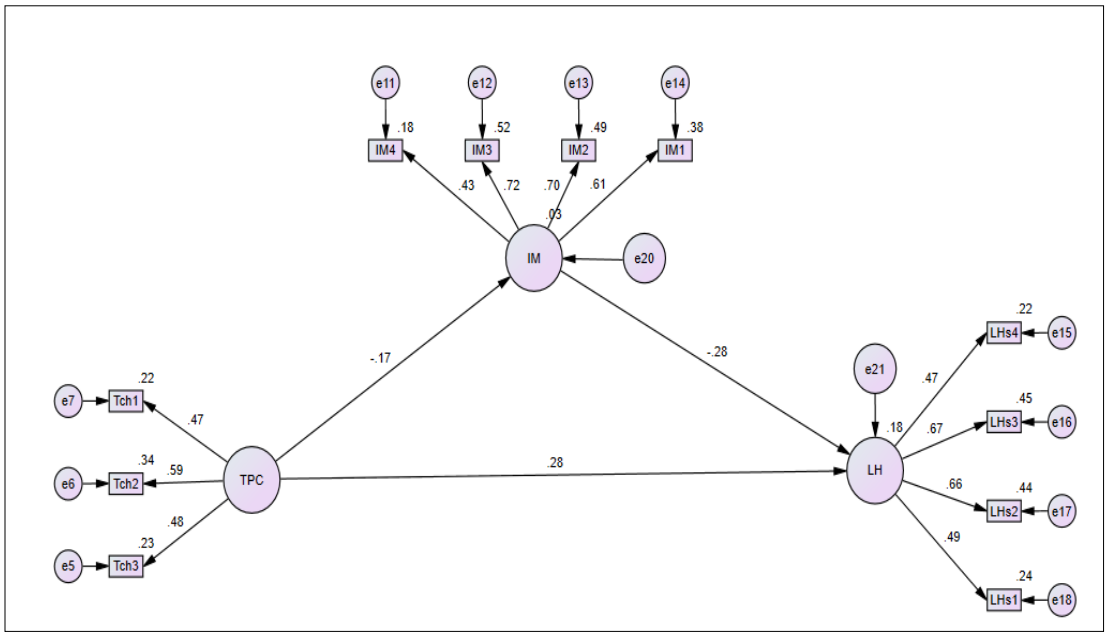


Note. Tch1-4 = Perceived Teacher Psychological Control Items; *IM1-4* = Mindsets Items; *LHa1-4* = Learned Helplessness Items: *LH* = Learned Helplessness; *TPC* = Perceived Teacher Psychological Control; *IM* = Mindsets

A model fit analysis was first assessed using AMOS version 24 software. The model yielded a good fit for the data. CMIN/DF =1.23, SRMR = .04, TLI= .98, CFI= .98, GFI= .98. Having satisfied this step, analyses proceeded to the structural model. A bias-corrected confidence interval with 5000 resamples was employed in the analysis. Hair (2020) points out that bias-corrected confidence intervals ensure accurate estimation of the mediation effect by adjusting for potential biases in the data. Estimates from the structural model are reported in Figure 4.9.

Figure 4.9

Mediation Model of Mindsets on the Relationship Between Teacher Control and LH



Note. Tch 1-3 =Perceived Teacher Psychological Control Items; *IM1-4* =Mindsets Items; *LHa1-4* = Learned Helplessness Items: *LH* = Learned Helplessness; *PTC*= Perceived Teacher Psychological Control; *IM* = Mindsets

The report on the findings is reported in Table 4.38.

Table 4.38

Findings on the Teacher Control Mediation Model

Relationship	Direct Effects	Indirect Effects	Confidence Interval		P-Value	Conclusion
Perceived TPC-> Mindsets-> Learned Helplessness	β = .28, p = .005	β = .05	Lower Bound .011	Upper Bound .101	.001	A competitive Partial Mediation was established.

Table 4.18 presents the results of a study examining the relationship between perceived teacher psychological control and learned helplessness and the mediation of mindsets. The direct effect of perceived teacher psychological control on learned helplessness was found to be significant (β = .28, p < .01). A positive relationship between perceived

teacher psychological control and learned helplessness, meaning that as perceived teacher psychological control increases, feelings of uncontrollability also tend to increase.

The indirect effect of mindsets on learned helplessness was also found to be significant (β = .05), with a 95% confidence interval ranging from .011 (lower bound) to .101 (upper bound). This indicates that there is a positive indirect relationship between perceived teacher psychological control and learned helplessness through mindsets. In other words, higher levels of perceived teacher psychological control are predictive of fixed mindsets, which in turn can be predictive of increased learned helplessness.

The p-value for the indirect effect is .001, which shows that the indirect effect is statistically significant. Therefore, the study established competitive partial mediation. While there is a direct effect of perceived teacher psychological control on learned helplessness, this relationship is also partially mediated by mindsets in predicting learned helplessness. The mediation is deemed partial as there is residual variance not accounted for by the mediator, indicating the presence of additional pathways or variables influencing the relationship. Thus, we concluded that mindsets significantly mediated the relationship between perceived teacher psychological control and learned helplessness.

4.5.9 Discussion of the Findings

The fourth objective sought to examine the mediating role of mindsets in the relationship between perceived teacher psychological control and learned helplessness. The findings indicated that teacher control partially mediated the relationship, and thus the hypothesis was supported. Perceived teacher psychological control predicted

students' mindsets held, which resultantly predicted the students' learned helplessness perceptions. Moreover, there was a significant indirect effect between mindsets in relationships, which underscored the importance of mindsets as a potential intervention point for the debilitating effects of psychological control.

This study's findings are in line with those of Sorrenti et al. (2018) among a secondary school sample. The investigation highlighted the importance of understanding the role of personality traits in shaping attitudes towards learning and academic beliefs. Specifically, it emphasised the impact of learned helplessness on academic performance and the importance of teachers fostering a mastery orientation to promote positive learning experiences and outcomes.

These findings are consistent with prior studies on the negative relationship between psychological controlling practices and mindsets (Yan et al., 2020). Although parents remain key socialisation agents for adolescents, teachers are more competing agents and as such their actions have a more central influence on the development of the adolescents. Research shows that teacher control plays a more central role than parental control in creating helpless perceptions among adolescents. Teachers serve as key socialisation agents during this developmental stage.

The findings of the study align with those of Zarrinabadi et al. (2021). Accordingly, students who view their teachers as more supportive have a higher likelihood of adopting incremental mindsets and thereby are confident in their ability to succeed in challenging situations. The study broadens the understanding of mindsets, whereby learners who endorse incremental mindsets also show high self-beliefs in their competence. Students are more self-driven when teachers intentionally create

environments which nurture autonomy needs. These activities reinforce a positive view of self, which is elemental in navigating failure situations.

Against that background, the current study's findings provide mechanisms for the role of controlling teachers in the development of learned helplessness and go further to suggest an underlying mechanism for linking these constructs. As such, teachers who nurture the need for autonomy where teachers encourage intrinsic motivation, enhance instructional experiences, emphasise the students' strengths and encourage personalised goal setting are more likely to strengthen incremental mindsets, which, in challenging situations.

It is important to view the learner as an active participant in shaping their reactions to failure, which may stem from overly controlling teachers. Whilst previous evidence, controlling teachers may impel students to hold fixed mindsets (Rissanen et al., 2019; Zarrinabadi et al., 2021), a line of literature argues that mindsets are shaped in early developmental stages and are relatively enduring (Kapasi et al., 2020; Ncororo et al., 2022). This proposition argues that the incremental mindsets that students hold may, therefore, act as a buffer for the debilitating developmental outcomes associated with psychologically controlling social agents.

However, these findings contradict the findings by Yu et al. (2022) on the relationship between autonomy-supportive teacher practices and students' mindsets. This could be due to the use of a single-item measure that could have potentially increased the measurement error. Single-item scales cannot average out errors, which makes them vulnerable to misinterpretation and does not cover the constructs fully. For complex constructs, such a tool lacks depth, limiting the reliability and thus runs the risk of

oversimplification. Multiple-item measures are preferred for their ability to capture nuances, ensuring a more accurate and comprehensive study of the constructs.

These findings have important implications as they reveal the potential intervention point that the mindsets that learners hold play in alleviating the problematic developmental outcomes associated with psychologically controlling teacher behaviour. The findings call for a need to nurture mindsets and autonomy support among learners, which would significantly reduce the learned helplessness levels.

CHAPTER FIVE

SUMMARY, RECOMMENDATIONS AND CONCLUSIONS

5.1 Introduction

The section below is broken down into three subsections: summary of findings, conclusions, and recommendations for further research and policy.

5.2Summary

This inquiry examined the relationship between perceived teacher and parental psychological control and learned helplessness. Additionally, the researchers sought to establish whether mindsets mediate the aforementioned relationships. To this end, four key objectives were formulated: the first two investigated the relationship between perceived paternal, maternal and teacher psychological control and learned helplessness and the last two delved into the mediation role of mindsets in the relationship.

In the first objective on the relationship between perceived parental psychological control and learned helplessness, two supplementary hypotheses for the maternal and paternal sections were developed. Findings reveal a significant weak and positive relationship between both perceived paternal and maternal psychological control and learned helplessness. This suggests that an increase in perceived controlling parenting was associated with increased levels of learned helplessness. Interestingly, perceived maternal psychological control demonstrated an even stronger relationship with learned helplessness compared to paternal control, highlighting its particularly significant predictive value.

The second objective determined the relationship between teacher psychological control and learned helplessness. A significant relationship was found, indicating that an increase in the controlling teacher behaviours was linked with increased levels of learned helplessness among the students.

The third objective sought to explore the mediation role of mindsets in the relationship between perceived parental psychological control and learned helplessness. A significant full mediation effect of mindsets was established for the relationship between perceived paternal control and learned helplessness. Mindsets were found to fully mediate the relationship between controlling fathers and learned helplessness. Furthermore, a partial mediation of mindsets was found in the relationship between maternal psychological control and learned helplessness. The conditional indirect effects of psychological control on students' levels of learned helplessness via mindsets were established to be significant for both paternal and maternal dimensions of psychological control.

The fourth objective explored the mediation of mindsets on the relationship between perceived teacher psychological control and learned helplessness. Through a Structural Equation Modelling (SEM) analysis, it was established that mindsets partially mediate this relationship.

5.3 Conclusions

On the first objective, the study established a significant positive relationship between perceived paternal and maternal psychological control and learned helplessness. Adolescents who perceived high levels of control from parents were more likely to

experience uncontrollability of events in their lives since they were more likely to be driven by external regulations.

The second objective established a significant positive relationship between teacher psychological control and learned helplessness. Teachers who openly disapprove of a student's contribution, explicitly display disappointment when students fall below their expectations or use personal attacks are more likely to induce learned helplessness in the students.

On the third objective, a full mediation was established for the relationship between perceived paternal psychological control and a partial mediation for perceived maternal control and learned helplessness, respectively. Controlling parenting undermines perceptions of control and competence among learners and, as such, may reinforce beliefs of intelligence as unchanging, which predisposes them to helpless reactions in the face of failure. Mindsets are, therefore, an intervention point for the relationship between controlling parenting and learned helplessness.

The fourth objective established a partial mediation of mindsets in the relationship between perceived teacher control and learned helplessness. This implies that students with fixed mindsets are more inclined to display powerless response behaviours due to their propensity to see obstacles as impossible tasks, which they interpret as signs of low competence.

5.4 Recommendations

The current investigation has made notable contributions to the theory of the relationships between psychological control, mindsets and learned helplessness.

Against this, the following are the suggested recommendations for policy and further investigation.

5.4.1 Policy Recommendations

The following recommendations were made, in line with the study objectives to the key stakeholders.

i. In the first objective, a positive link between perceived parental psychological control and learned helplessness was established. Increased feelings of controlling parenting are associated with increased feelings of uncontrollability in adolescents. Therefore, there is a need for parents to nurture autonomy in their children by desisting from behaviours that are controlling, such as ridiculing, invalidating, guilt-inducing, comparing to others and guilt-tripping, which may potentially induce helpless reactions in the face of challenges. As an alternative, parents need to adopt behavioural control in the management of discipline in their children.

ii. Findings on the second objective established that perceived teacher control was significantly and positively linked to learned helplessness in students. Teachers should therefore avoid using controlling techniques which thwart the need for autonomy and may communicate a sense of incompetence to the learners. Furthermore, teachers, counsellors and school managers may employ measures such as attributional retraining and motivational interventions, which have proved effective in offsetting dysfunctional explanatory style associated with learned helplessness and nurturing persistence and grit in the face of failure.

iii. In the third objective, it was established that mindsets mediated, in part, the relationship between perceived maternal and fully perceived paternal psychological control and learned helplessness. Considering that mindsets are nurtured from an early age, it is therefore recommended that parents adopt incremental mindset strategies that would act as a buffer against psychological controlling tendencies and shape their view on challenges.

iv. Under the fourth objective, mindsets were established to partially mediate the relationship. It is therefore recommended that school managers and teachers should consider infusing mindset interventions in their teaching to increase learners' engagement, study habits and approach to failures and challenging situations. Those interventions seeking to change students' mindsets to adopt a more incremental view in the face of challenges are likely to be more beneficial.

v. The Ministry of Education and its allied organisations should consider recognising learned helplessness as a problem in the learning institutions, provide diagnostic tools and implement learned helplessness alleviation interventions. Further, they should consider structuring learning content and activities, promoting an incremental view of intelligence. This may go a long way in eradicating and minimising learned helplessness among learners in secondary schools.

5.4.2 Recommendations for Further Research

The recommendations formulated below may warrant further investigations.

i. The findings of the study established that perceived parental and teacher psychological control had a significant relationship with learned helplessness.

Other variables could be associated with or predictive of learned helplessness. The findings also show mindsets to mediate the relationships. Other dispositional variables and self-beliefs may also be potential intervention points for relationships between psychological control and related problem behaviours. Future studies may therefore consider such variables.

ii. The findings are solely based on students' self-reported items. Other studies may employ other data collection techniques such as interviews, observations, experimental methods and focus group discussions and/or collect data from multiple informants. This may enhance the validity of the findings and cross-validate the sources.

iii. The study was biased to form three students in Makueni County. To find out if the data in the study is representative of students across Kenya, or other demographics such as primary schools, tertiary institutions, urban schools and, especially, special schools, considering that they may be at a higher risk of learned helplessness; further research is warranted. Other studies may, as well, be done in other counties considering differences in cultural and geographic settings.

iv. While the study established that there were significant relationships between parental control and learned helplessness, literature has established variations among different sample characteristics. It is therefore recommended that studies be done on children's samples and differently-abled learners who may be more susceptible to learned helplessness.

v. Although the study found significant relationships between parental control and learned helplessness, the findings did not align with the literature on primary figures in the family unit exerting more control in collectivist cultures. For this reason, more studies may be conducted to establish the findings.

vi. The study used cross-sectional data and a correlational approach, which limits the determination of reciprocal relationships and causal conclusions. Future studies may extend these findings by using experimental methods which have greater precision than correlational approaches.

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Appendix A

Participant Informed Consent Letter

Student Informed Consent Form

Title of the Study

Perceived psychological control as a correlate of learned helplessness mediated by mindsets among form three students in Makueni Sub-County, Kenya.

Principal Investigator

Gideon Keli Nzioki,

Department of Educational Psychology,

Kenyatta University.

43844-00100

21762.2021@students.ku.ac.ke

Purpose of the Study

I am intending to conduct a study titled "*Perceived psychological control as a correlate of learned helplessness mediated by mindsets among form three students in Makueni County, Kenya".* This is a request to participate in the study which is part of the requirements of my Masters in Education course. You are free to ask the researcher for clarification or more details. The findings, are hoped, will be useful in changing students cognitive and motivational orientations in the face of failure as well as enhance student support and engagement.

Study Procedures

As a form three student in Makueni Sub-county, you have been selected to participate in

the study. You are expected to go over this informed consent form handed over by the researchers. Upon consenting to participate you will be handed a series of questionnaires, which you are expected to tick accordingly. This is expected to take between 15 to 30 minutes. After completion, you will be requested to hand the questionnaires over to the researcher.

Risks

There are no foreseeable risks of participating in this study. However, if you feel uncomfortable in sharing your details, you are free to fail to respond to the question or withdraw from the study entirely. Be assured that the study is purely for educational advancement and only the researcher has access to your responses.

Benefits

By taking part in the study, you will help the researchers in advancing knowledge on the selected parental, teacher and student variables predictive of learned helplessness. This may help in the creation of policies that nurture student engagement and support. Copies of the final research will also be available upon request.

Confidentiality

The responses to the questionnaires will be anonymous. Kindly do not add any identifying information such as your name or registration number. The responses you give are confidential and will only be accessed by the researcher and their assistants.

Contact Information

If you have any queries concerning the study, do not hesitate to email me at 21762.2021@students.ku.ac.ke.

Voluntary Participation

Participation in the study is voluntary, and as such you have the right to withdraw at any time of the study or abstain from answering certain questions. Withdrawal will not carry any repercussions. In the event of withdrawal from the study, please submit your questionnaire to the researcher.

Participant Statement

I have read the above information and understood my involvement in the study. I understand that my participation is voluntary and that I am free to withdraw from the study at will without any consequences or selective treatment.

Participant's signature: _____ Date _____

Class Teacher's signature: _____ Date: _____

Appendix B

Students' Questionnaire

Dear student,

You have been chosen to take part in this research. Kindly be truthful in your responses to the questions. The data you provide may be key to the development of a motivation-oriented learning and supportive learning environment.

Part I: Background Information

Kindly tick where applicable

1. Gender: Male [ ] Female [ ] Others (Please specify) _____
2. Age in years _____ .
3. School type: i. Boys Boarding [ ]
   ii. Girls Boarding [ ]
   iii. Mixed Gender Day only [ ]
   iv. Mixed Day and Boarding: Day scholar [ ] Boarding [ ]

Part I: Psychological Control Scale - Youth Self-Report Questionnaire

a. Paternal psychological control measure

Below are descriptions of your father's/ guardian's behaviour towards you. Please tick according to the degree to which you agree with them. If the statement does not reflect your father's/ male guardians' behaviour, tick "not like him"; if it partially describes their behaviour, please mark "somewhat like him" and if it quite describes his mannerisms, indicate "a lot like him

	My father is a person who…	Not like him	Somewhat like him	A lot like him
1.	is always trying to change how I feel or think about things.			
2.	changes the subject whenever I have something to say.			
3.	often interrupts me			
4.	blames me for other family members' problems.			
5.	brings up past mistakes when he criticizes me.			
6.	is less friendly with me if I do not see things his way.			
7.	will avoid looking at me when I have disappointed him.			
8.	if I have hurt his feelings, stops talking to me until I please him again			

b. Maternal psychological measure

This section seeks to find out your feelings about your mother's guardian's behaviour. Please tick according to the extent to which these statements are true. If the statement does not reflect your mother's behaviour towards you tick "not like her"; if it partially describes their behaviour; please tick "somewhat like her" and if it quite describes his mannerisms mark "a lot like her"

	My mother is a person who…	Not like her	Somewhat like her	A lot like her
1.	is always trying to change how I feel or think about things.			
2.	changes the subject whenever I have something to say.			
3.	often interrupts me			

4.	blames me for other family members' problems.			
5.	brings up past mistakes when she criticizes me.			
6.	We ask you to select the third option, 'a lot like her' as a response to show that you are paying attention			
7.	is less friendly with me if I do not see things her way.			
8.	will avoid looking at me when I have disappointed her			
9.	if I have hurt her feelings, stops talking to me until I please her again			

Part II: Psychologically Controlling Teaching Scale-Student Report

Below are statements on teacher classroom behaviours. Kindly indicate the extent to which you agree or disagree with the following statements.

	My teachers…	**Strongly Disagree**	**Disagree**	**Neither**	**Agree**	**Strongly Agree**
1.	are always trying to change me.					
2.	clearly show that I have hurt their feelings when I have failed to live up to their expectations.					
3.	are less friendly with me if I don't see things their way.					
4.	are strict with me when I disappoint them.					
5.	make me feel guilty when I disappoint them.					
6.	Avoid talking to me when I disappoint them.					
7.	often interrupt me.					

Part IV: Implicit theories of intelligence scale

The statements below probe into your view of your learning ability. Please indicate by ticking (√) the degree to which you agree or disagree with the given statements. Tick in the in the boxes provided according the scale outlined below.

Strongly agree **(SA);** Agree **(A);** Mostly Agree **(MA);** Mostly Disagree **(MD);** Disagree **(D);** and Strongly Disagree **(SD).**

	Question	**Answers**					
		SA	**A**	**MA**	**MD**	**D**	**SD**
1.	I have a certain amount of intelligence, and there is nothing much I can do to change it.						
2.	My intelligence is something about me that I cannot change very much.						
3.	No matter who I am, I can significantly change my Intelligence level						
4.	To be honest, I cannot really change how intelligent I am.						
5.	I can always change how intelligent I am.						
6.	I can learn new things, but I cannot really change my intelligence						

7.	No matter how much intelligence I have, I can always change it quite a bit.						
8.	I can change even my basic intelligence level considerably.						

Part III: Learned Helplessness Scale.

Sometimes, as a student, you may feel that some aspects of learning are beyond your control. No matter how much effort you devote to the activity, you are bound to fail. These statements describe your reactions to learning tasks. Kindly tick the box that best describes your feelings accurately.

		Strongly Agree	**Agree**	**Dis agree**	**Strongly Disagree**
1.	No matter how much energy I put into a task, I feel I have no control over the outcome.				
2.	I feel that my ability to solve problems is the cause of my success.				
3.	I can find solutions to difficult problem.				
4.	I don't place myself in situations in which I cannot predict the outcome.				
5.	If I complete a task successfully, it is probably because of my ability				
6.	I have the ability to solve most of life's problems				
7.	When I do not succeed at a task, I do not attempt any similar tasks because I feel that I would fail them also				

8.	When something turns out the way I planned, I know it is because I have the ability to start with.				
9.	Other people have more control over their success and/or failure than I do				
10.	I try new tasks if I have failed similar ones in the past				
11.	When I perform poorly, it is because I don't have the ability to perform better.				
12.	I accept tasks even if I am not sure that I will success at them				
13.	I feel that I have little control over the outcomes of my work.				
14.	I am successful at most tasks I try				
15.	I feel that anyone else could be better than me at most tasks				
16.	I am able to reach my goals in life				
17.	When I don't succeed at a task, I find myself blaming my own stupidity for my failure				
18.	No matter how hard I try, things never seem to work out the way I want them to				
19.	I feel that my success reflects my ability, not chance				
20.	My behavior seems to influence the success of a work group				

Appendix C

Sample Size Determination Table

Table C2

Krejcie and Morgan's (1970) sample size determination table

N	*N*	*N*	*n*	*N*	*N*
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	1000000	384

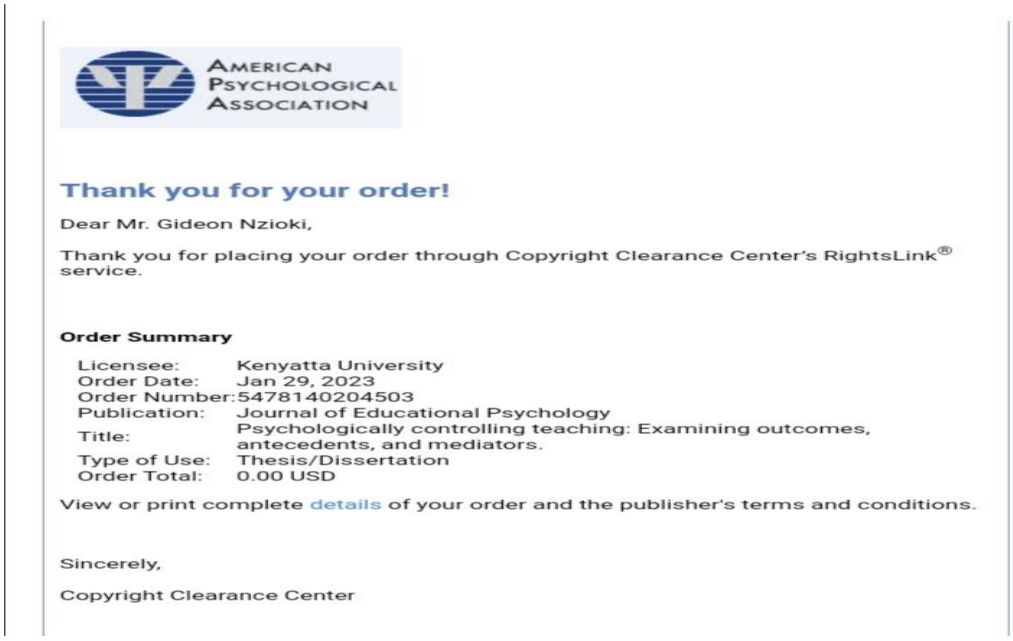
Source: Krejcie and Morgan (1970)

Appendix D

Permission to Adapt and Use Instruments

D1: Permission to Adapt and Use the Psychological Control Scale – Youth Self-Report Scale

D2 Psychologically Controlling Teaching Scale – Student Report



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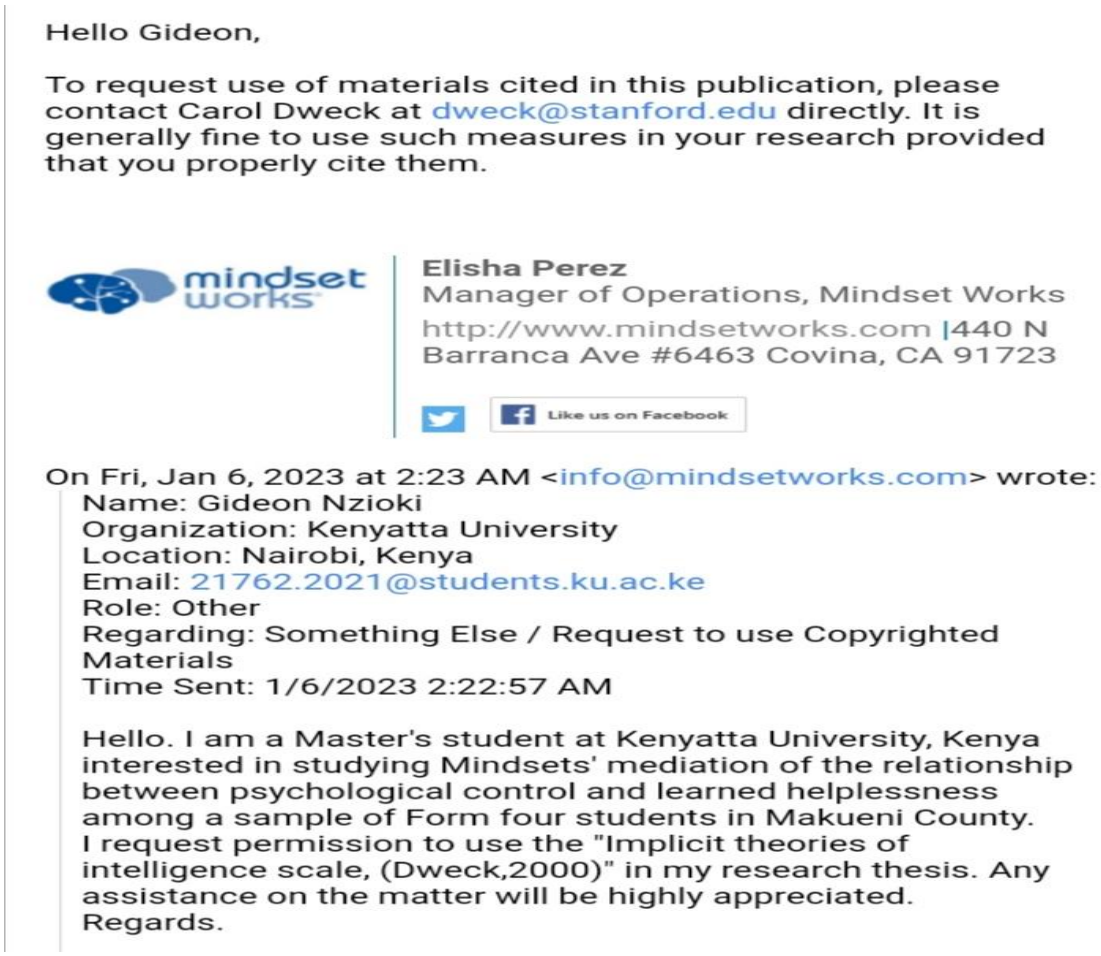
D3 Permission to Adapt and Use the Implicit Theories of Intelligence Scale



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On Fri, Jan 6, 2023 at 2:23 AM <info@mindsetworks.com> wrote:

> Name: Gideon Nzioki
> Organization: Kenyatta University
> Location: Nairobi, Kenya
> Email: 21762.2021@students.ku.ac.ke
> Role: Other
> Regarding: Something Else / Request to use Copyrighted Materials
> Time Sent: 1/6/2023 2:22:57 AM
>
> Hello. I am a Master's student at Kenyatta University, Kenya interested in studying Mindsets' mediation of the relationship between psychological control and learned helplessness among a sample of Form four students in Makueni County. I request permission to use the "Implicit theories of intelligence scale, (Dweck,2000)" in my research thesis. Any assistance on the matter will be highly appreciated.
> Regards.

Appendix E

Research Permit

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

Ref No: **939652**

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RESEARCH LICENSE

This is to Certify that Mr. Gideon Keli Nzioki of Kenyatta University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Makueni on the topic: PERCEIVED PSYCHOLOGICAL CONTROL AND MINDSETS AS CORRELATES OF LEARNED HELPLESSNESS AMONG FORM THREE STUDENTS IN MAKUENI COUNTY, KENYA for the period ending: 03/November/2024.

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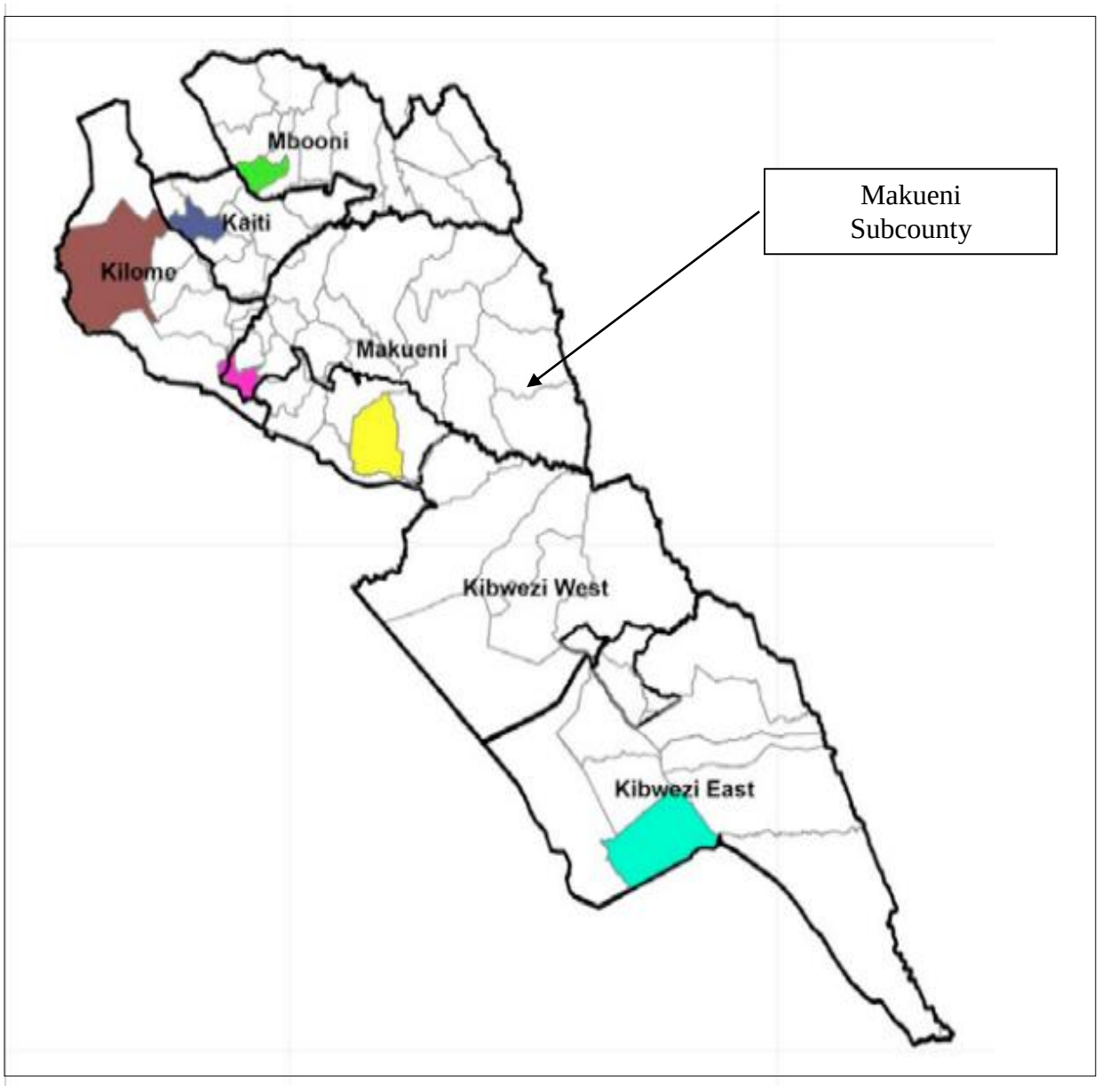
Appendix F

Research Map



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